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Textile World

MAY 1940

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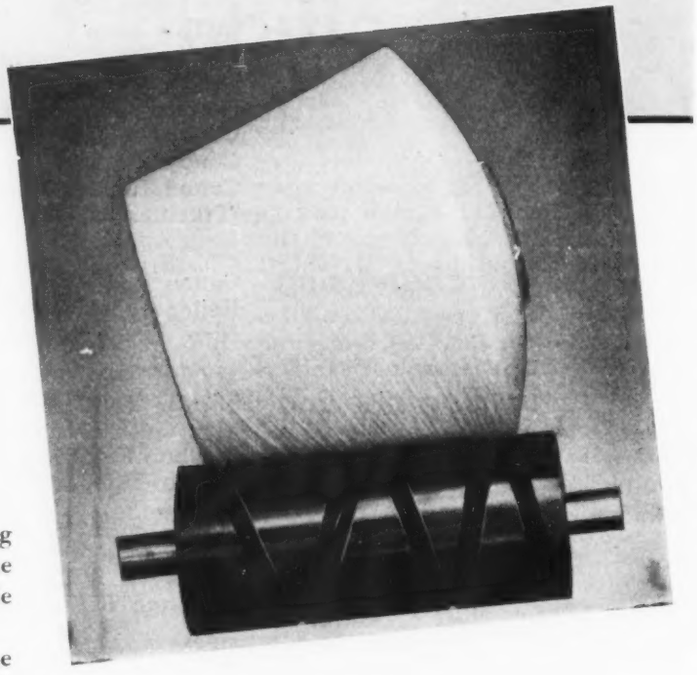

Mr. Franklin A. Reece is named a "MODERN PIONEER" by National Association of Manufacturers for his invention of the "rotating traverse." The citation on Mr. Reece's award reads: "For the development of the Reece Roll, in textile machinery, which made possible the production of a winding machine with no reciprocating parts; one of the most significant improvements in textile machinery in the past 50 years."

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TEXTILE WORLD

DOUGLAS G. WOOLF, Editor

The Twilight of the Gods

ONCE AGAIN world events make the affairs of us as individuals, or of textile men as an industry, seem too piddling to warrant treatment on this page. We had a perfectly good textile editorial prepared—but it must wait until and if the world becomes sufficiently sane to permit any sort of assurance that nations and industries and people may direct their own affairs.

Those of us who are old enough to have experienced the first World War thought then that we had seen the limit in world tragedy. As it turns out, we had seen nothing. In that war, most of the countries involved had been potential belligerents.

In this war, the program is different. Two countries on the rampage have swallowed up several small, inoffensive and largely defenseless nations.

Nothing makes this war more vivid in our understanding than this last onslaught upon Scandinavia. Of all the nations in the world, no countries deserve more to be let alone to work out their destinies in peace than do the Scandinavian countries. They have been four-square in their determination to insure the happiness and well-being of their peoples. They have made more progress toward economic sanity than have any other nations in the world—and in this statement we certainly do not except our own country.

And yet, in a few short weeks, Scandinavia has been torn by war, invaded by a "protector," ripped asunder by the very forces from which it has tried to hold itself aloof.

The rape of Scandinavia stands out as the most horrible manifestation of international crime that any of us have witnessed even in these last decades of brutality.

TO ALL OF US in this country, irrespective of racial background, economic status, or political beliefs, this latest brutality must mean only one thing: that we cannot count on any safety in the future.

We must be prepared for the worst: possible victory for Germany and Russia, in which Italy would undoubtedly join as a belated partner in the spoils, and as a result of which Japan would just as undoubtedly extend her depredations, not only against China but eventually against the United States.

We must realize that we have an unstable country south of the border which would then be used as a tool by Communistic and Nazi influences, working in combine.

We must realize that all our dreams of security, of isolation, of self-containment, have vanished into the thin air, as the result of the events of recent weeks. We are no more safe, permanently, than is England, or France, or Norway, or any of the other countries which are fighting for their lives.

WHAT IS THE ANSWER for us? Only one. If ever this country needed a united front, it needs it today. This has been used as a slogan in countless political campaigns. Today it is not a slogan. It is a desperate call for self-defense, for national protection against forces which have been unleashed upon the world. Our vast expanses, our mighty industries, our gold, our great shore-lines, are no assurance against this new threat. Rather, are they targets.

There is only one assurance: That everyone from the President down concentrate on the objective of making America safe for Americans. We must throw overboard political differences, class hates, sectional bitterness. Democrats, Republicans, Northerners, Southerners, industrialists, labor union officials, farmers, miners, liberals, conservatives—and all other groups formerly split by conflicts of opinion, must realize that we are now all in the same boat—and must act toward insuring the safety of that boat.

How can this be made a practical line of action, rather than an abstract thought? That is a difficult question to answer. Our political set-up is not one which makes a truly national government easy to achieve; nor do we want to do anything to weaken our democratic processes. Possibly a step in the right direction would be the appointment of an advisory body representative of both major parties and of the minor parties, and also giving voice to all the various groups previously mentioned. Such a committee, acting in an advisory capacity to the President and possibly even to the Congress, might help to point up our national needs and policies.

It is not enough to say that this can't be done.

It must be done.

Otherwise, we too will be sucked into the chaos which grips the rest of the world. Civilization is racing toward its twilight. There is still time to save it for this hemisphere.

Douglas G. Woolf

THE EDITOR SAYS

The Need Is So Great The Answer Must Come

ROBERT HANES, in his address before the American Cotton Manufacturers Association, put his finger on the greatest need of industry today: long-range planning.

The textile industry has been experimenting with long-range constructive programs for the last 15 years. Starting in 1926, the Cotton-Textile Institute under the successive leadership of Walker Hines, George Sloan, Goldthwaite Dorr, and Claudius Murchison, has sponsored some of the most constructive moves in the recent industrial history of this country. Similarly, the national organizations in the wool, silk, rayon, underwear, hosiery, finishing and other divisions of the textile industry, have pushed forward on this front. Sectional and State associations, as well as other groups representing vertical branches of textiles, have been an important second line of offense.

In very recent years, however, offense has been subordinated, perforce, to defense. Protection against unsound governmental acts has occupied most of the time of the executives and members of the associations.

We hope, and believe, that the time is at hand when constructive enterprises can once more have the practically undivided attention of the industry.

In preparation for that forward movement, these steps are necessary:

1. All companies should support by their membership and their interest the associations which serve them. The hitch-hiker, described by William M. McLaurine at the A. C. M. A. convention last month, should learn that it is to his own interest to pay his way.

2. Honorary officers and directors of associations should support the paid executives in the development of long-range programs.

3. The paid executives should accept such support as a mandate.

4. Coordination of the activities of all the associations should be pushed to a far broader status than at present. The coordination conferences conducted under the leadership of Dr. Murchison—the latest of which was held on May 8—and the activity of the National Council of Textile Industries are signposts. In that direction lies the main hope for textile stabilization.

Frankly, we know there are some in the industry who regard all this talk of cooperative action as so much tripe. Fortunately, they are in the minority. This much can be said: Without the cooperation which has existed in the textile industry during the last 15 years, the industry would have suffered far more acutely from the change of life it has experienced.

And so we come back, as we always do, to the crying need for coordination. If this is a fetish on our part, it arises from a deep-seated conviction that in no other way can the textile industry be made a safe place in which to invest or work.

Someday there will be a mass meeting of representatives of all divisions and sections intent on this one objective: Shaping the future of a decentralized industry.

So, we repeat: Eventually, why not now?

Who Will Join the 20-Minute Club?

WE HAVE NO DESIRE to reform the world. We have no program which will insure everlasting peace. We have no panacea for the social and economic ills which now beset us.

But, before we die, we would like to accomplish one thing. We would like to limit *all* convention speeches to a maximum of 20 minutes.

We have advanced this revolutionary idea previously in these columns. We have had some minor victories, in connection with the planning of convention programs in which we have had a small part. But the job, largely speaking, is still to be done.

The fact remains that no speech is any good after 20 minutes. The parson who said that souls which were not saved during the first 20 minutes of a sermon never would be saved, spoke only part of the truth. Those other souls not only are not saved, but to some extent are damned. They become so obsessed with frustration and boredom that all their evil juices start working. It's a wonder to us that speakers who hold the platform for an hour or more aren't assassinated. Probably, this escape on their part is merely a working manifestation of the old childhood taunt that "sticks and stones will break my bones, but words will never hurt me." But if those same speakers heard the "words" bandied around in lobby conversation after release from a program of lengthy addresses, we are sure they would be "hurt."

But no hurt they could suffer would match that which their listeners have to endure.

So, who will join our 20-minute club?

There's Gold in Them Thar Hills

THE TRIBUTE PAID by K. P. Lewis, retiring president of the American Cotton Manufacturers Association, to the Southern Combed Yarn Spinners Association and its executive secretary Mildred G. Barnwell was both gracious and warranted. The publication of the book, "Faces We See," ranks as one of the important public-relations activities in textiles.

Public relations is still more or less of a no-man's land. Therefore, those groups who find in that field a chance for specific action on a definite problem are ahead of the procession. That is what "Faces We See" represented. The need for a positive presentation of the real status of southern mill workers has existed for years. Mrs. Barnwell filled that need by the publication of her book.

Similarly, other groups have done pioneer work in that zone. This magazine has recorded their achievements in these columns during the last several years.

Just recently, Dean Hill of the Durene Association was awarded honorable mention by the American Trade Association Executives for his aggressive activities in the promotion of mercerized yarn. Those of us who have been in touch with his work know how well this award was deserved.

To those who are fighting for a place in the sun for their particular industries or groups, goes the appreciation of an industry which has sorely needed just that type of effort.

Such programs will increase in number and effectiveness in the future. To those who claim—not without justification—that the textile industry has been backward in promotion, our reply is that this shortcoming makes this field all the more attractive for merchandising-minded individuals. This is virgin territory. A good old-fashioned land-rush would be in order. More pioneers will be welcome.

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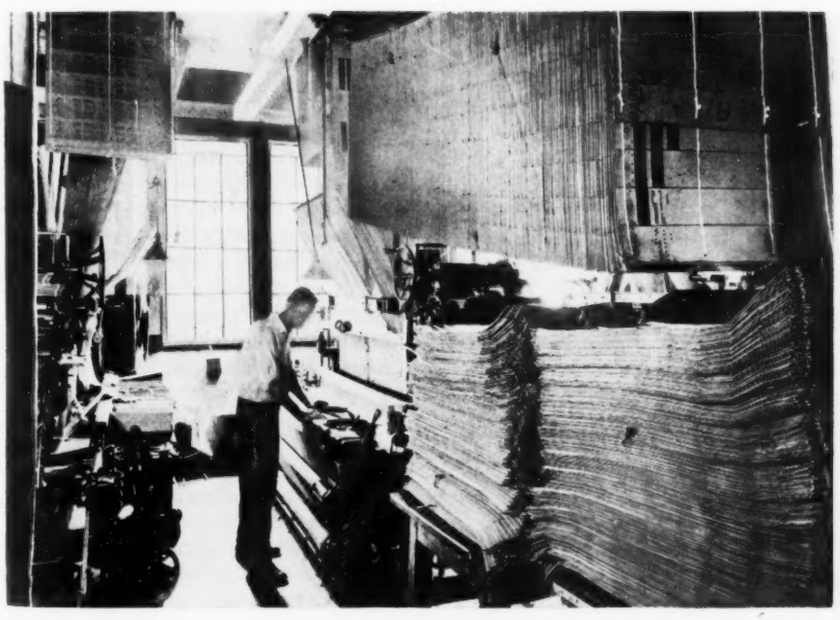
28,500 Cards for One Pattern



WEAVING OF FABRIC at Cheney Bros., South Manchester, Conn., with what is believed to be the longest and most costly jacquard design ever made in the United States. The jacquard is a reproduction of an antique hand-loomed fabric, which was designed by Phillippe de la Salle, French designer in the reign of Louis XV, 1715-1774. Weaving of it was commissioned by Robsjohn-Gibbings, interior designer, New York, on behalf of a client.

Photograph shows loom with 28,500 cards required for production of the design. Background of the fabric is cream in shade; the figured portion contains six colors—gold, green, ecru, rose, pink, and blue. Twenty-four panels, each eleven feet long, were woven for the client; one additional panel was woven for the Cheney fabric collection.

•

THE FRONT COVER photograph this month was taken by Miss Bessie W. Callaway of La Grange, Ga.

Textile Effect of New War Stage

Curtails sale of cotton—Labor act prospects and other Washington news

McGRAW-HILL WASHINGTON BUREAU

PAUL WOOTON, Chief Correspondent
Blaine Stubblefield
Irvin D. Foos Carter Field
Robert Colborn M. G. Maury

WAR IN EUROPE is curtailing sale of American cotton and cotton goods to the belligerents. Britain stopped the flow of these exports to Germany immediately when hostilities started. Increased purchases by neutral countries then largely offset loss of the German market, but European neutrals' purchases are being progressively choked off. Total exports of textiles are increasing moderately, however, when raw cotton is not considered. This is mainly because we are gaining markets dropped by England and Japan.

The annual average import of American cotton by Norway was 12,000 bales; Finland 50,000; Denmark 35,000; Sweden 115,000; total 212,000. Some recent figures were far larger than these averages. In 1939 Norway imported 295,000 sq. yd. of U. S. denims; 228,000 sq. yd. of ducks of various types; Sweden bought 1,341,893 sq. yd. of tire cord fabrics.

Of course the British and the Germans have stopped deliveries to all ports in Norway. The British have stopped deliveries to Denmark; for the present, deliveries are being made in Sweden and Finland, but the situation might change over night. Total U. S. textile products sold to the Scandinavians in 1939 was valued at $4,184,000.

Naturally, France and Britain are turning for their cotton to countries that will take more of their goods in exchange. Undoubtedly the U. S. Government's policy on cotton loans, subsidy and benefits will be affected by the war in Europe.

Upon the outbreak of the Norse war, a report circulated in Washington that important quantities of Norwegian and Swedish spruce pulp are imported by this country's rayon industry. The Forest Products division of the Department of Commerce says this is not so; that most of our supply comes from Canada. The Scandinavians are suppliers to Europe, South America and Japan.

ENEMIES OF THE WAGNER ACT are winning battles but Washington's oracles predict they will lose the war—this session. The House Labor Committee has a bill of four mild amendments which it has reported for action by the House. The committee passed a resolution urging a vote on the bill under rules prohibiting any amendments being offered from the floor. But the anti-Administration Rules Committee, rebuking the Labor Committee and its chairman Mary T. Norton, gave the bill a rule which allows any or all of the 14 drastic Smith amendments to be thrown in. Representative Howard W. Smith is the anti-Labor Relations chairman of the special House committee which has investigated the board.

The Administration and the pro-labor House Labor Committee have been trying all this session to pacify the opposition with ineffectual amendments. But the Rules Committee has out-maneuvered the Norton group again and again. The Parliamentary experts say Mrs. Norton made a mistake when she reported any bill at all. The Rules Committee would hardly have ventured to give a rule to a bill that had not been reported.

"Help-business" sentiment in the House is such that some effective amendments probably will be passed. The fight will center on the proposal to abolish the Board and create a new five-member body as against another to add two members to the present board. But the Administration, which still holds its power in the House, will bitterly oppose the move for an entirely new board, and any other proposals that would threaten labor's present advantages in industry. House action may be completed before this is printed.

But even if drastic amendments do squeeze through the House, they will still have a rocky road to travel. In the Senate a small group of wilful men can defeat any measure, within reason and there is a liberal group in the Senate that wants the labor teeth left in the Wagner law. Next there is Mr. Roosevelt, under tremendous pressure to veto anything that looks to labors' friends like "emasculation" of the law.

DEFEAT OF THE WAGE-HOUR amendment bills by the House on May 3 was a victory in reverse for the farmers. The real issue of the battle, which often looked more like comic opera, was the Barden proposal to exempt two to four million workers in mills which process farm products, from both wage and hour provisions of the law.

The one-horse processing mills are in the "area of production" and are exempt from the act. But the big ones, which are covered, sold some of the farm unions on the idea that the extra cost of processing, due to the wage-hour law, was coming out of farm prices and not out of consumers' pockets. Whether the unions actually represented substantial farm opinion or not, never became clear. Anyway, their agents in Washington sided against the wage-hour forces and lobbied for Barden's exemption of process workers.

For meanwhile, Secretary Wallace's proposed "certificate plan" to tax processing for money to go direct to farmers as parity payments was shouted down from all directions before it got to Capitol Hill. Meanwhile also, President Roosevelt had refused to put any recommendation for parity payments in his 1941 agricultural supply budget. The House voted on the appropriation and turned thumbs down with FDR on parity. But when the Senate got the measure it put in $212,000,000 for parity. Then the bill went to the Senate-House joint conference committee.

That was the real issue, quite unrelated to the question of justice for process workers and employers, as the House went into its seven days of futile conversation. What actually took place (while not another peep was heard from the farm unions) was a deal in which the farmers' Congressmen agreed to kill the exemption for process workers if the city Congressmen would support the $212,000,000 parity handout when they voted on the conference committee's report.

The Senate amendment to the 1941 agriculture appropriation providing $212,000,000 for parity payments was up for vote by the House as this went to press. Approval seemed probable.

Everybody in Washington agreed that passage of the parity fund would kill the processing tax proposal for 1940.

Quick summary of Wage-Hour doings: Secretary Wallace of the Department of Agriculture went on the radio with Col. Fleming April 22 and told the farmers that the first-processor exemptions asked for in the Barden amendments were not necessary, thus knocking down the ears of farm groups in Washington who are helping the processors do a lobby job. . . . Fleming heard oral argument May 2 in review of the order respecting employment of learners in the knitted wear industry. A tentative amendment has been prepared as a basis of discussion. . . . The 33½c wage order in knitted underwear and commercial knitting took effect May 6. . . . Legal division announced that in granting hours exemptions to wholesalers a business will be considered retail if 50% or more of dollar sales are at retail. . . . Fleming is getting reports from field men looking toward possible re-definition of the "area of (farm) production." Handling and processing of all produce in the "area" within 10 miles of the farm, (excluding cities over 2500 people and plants employing more than seven workers) are exempt from both wage and hour provisions.

Hearings were held April 30 to determine whether any further learner certificates should be issued in the hosiery industry. . . . Silk throwing learners may be employed for 12 weeks at 25¢ per hour, instead of six weeks, the Wage-Hour Administrator ordered on April 27. The number of learners is limited to 3% of the total engaged in operating, tending, fixing, and jobs incidental thereto. As many as three learners may be certificated for establishments of up to 30 employees, five for firms having 31 or more in this occupation.

Fleming announced that three times as many court actions were begun and "successfully concluded" in the months ending April 24 as in the entire first year of the Act. . . . A new policy of inspecting plants in low-pay industries even in the absence of complaints was threatened by Congressional reduction of Wage-Hour administrative funds. . . . Tht Division feels that the Fifth District Court decision against Opp Cotton Mills and other mills in the South, who sued for injunction against the 32½¢ textile wage order, definitely establishes the constitutionality of the industry committee system set up by the Act. It could not be learned here whether or when the Opp Company would appeal to the Supreme Court.

Dr. C. T. Murchison in action opposing the Putnam Chain Store tax bill, before a Congressional Committee

A SUPREME COURT DECISION on May 6, upholding the conviction of 12 major oil companies for restraint of trade in violation of the Sherman Act, may have a bearing on the answer of the Print Cloth Committee, against whom the Department of Justice months ago filed charges under the same act.

In the "Madison oil case," the defendants had pled that their trade program was for the purpose of eliminating "competitive evils." But Justice Douglas, in writing the opinion which reversed a lower court, said: "Under the Sherman act, a combination formed for the purpose and with the effect of raising, depressing, fixing, pegging, or stabilizing the price of a commodity in interstate or foreign commerce is illegal per se . . . "

The Department of Justice complaint was filed against five individuals of the committee, not against companies participating in the program, which is said to have included 90% of the industry. It is understood in Washington that the defendants had obtained a delay in filing their answer so as to have the benefit of the high Court's decision in the oil case, regarded as parallel.

The print cloth defendants will have three choices in making their answers, according to Government attorneys: They can plead guilty, not guilty, or nolo contendere, which is equivalent to asking for the mercy of the court.

TEXTILE SCHOOL DEANS met in Washington April 22-23-24 for their annual conference under auspices of the Textile Foundation. The group talked with representatives from various Government agencies: Agriculture, Commerce, the Bureau of Standards, about their work in reference to textiles. The program included inspection of work being done at the Bureau of Standards under fellowships of the Textile Foundation, and a visit to the cotton laboratories of the Department of Agriculture. The deans considered a survey by Thomas R. Taylor for the Foundation, which is looking into the possibility of adding a fifth year at the schools for graduates of non-textile institutions. The course would be in the nature of a preparatory course on management problems in the textile industry. Dr. F. M. Feiker, dean of the School of Engineering of Georgetown University, and educational consultant to the Foundation, served as chairman of the conference.

THE PATMAN CHAIN STORE TAX BILL, which is intended to kill the chains with taxes, has been ably opposed by the Cotton-Textile Institute. Dr. Claudius T. Murchison, president of CTI, appeared before a Congressional Committee and argued that chain stores are an important outlet for cotton goods. But apparently opposition was unnecessary.

Parker Expands Facilities

Broader program for high school and adult classes—Training learners

FOUR NEW BUILDINGS, costing $250,000 without equipment, were formally dedicated a few weeks ago by Parker School District, of Greenville, S. C. The new buildings, a part of the high-school group, will house (1) vocational school, (2) library and cafeteria, (3) gymnasium, and (4) auditorium. Construction was carried out by WPA according to specifications drawn up by J. E. Sirrine & Co., engineers, Greenville.

Addition of these buildings was necessitated by increased enrollment in the high school and by extension of community and adult work. Parker High School student body has grown from 500 to 1,400 in recent years. Throughout the district there are 14 grammar schools with 6,000 students.

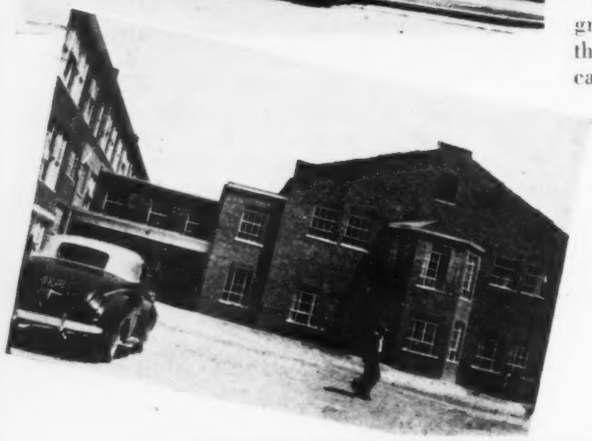
Parker District education is of three kinds: academic training for grammar and high-school students; vocational and occupational training for high-school students; special classes for adults and non-students.

Academic training is along progressive lines as advocated by Columbia University.

The vocational department now has 350 students, who spend 17 hours weekly studying textile manufacturing, machine-shop practice, drafting, auto-body repairing, machine sewing, etc. Over 130 of these students are specializing in carding, spinning, twisting, winding, weaving and other textile subjects, in addition to 13 hours regular academic work in the high school. An interesting feature is the "diversified occupation" division which recently placed 75 students in 17 different kinds of part-time work for which scholastic credit is given. Students participating in outside work must be over 16 years of age and are carefully selected for ability and aptitude. For example, if a girl wants to learn sales work in a department store or secretarial work in an office, a faculty coordinator arranges the job for her. She is paid a small salary by her employer during training.

Adult evening classes in textiles have grown in the last year when some of the local mills discontinued private vocational classes fearing complications from the Wage-Hour Administration. There were two 10-week sessions last winter which 150 adult students attended. A requisite for these evening classes is that each enrollee must be employed in some mill at the time of his study. The day-school equipment is used for the evening classes, and Parker vocational teachers are employed as instructors. There are four hours instruction weekly with an enrollment fee of $1. A recent survey showed that 12½% of those adults attending the evening classes were promoted at least one or more grades during the last year by the mills employing them.

LEARNER TRAINING PROGRAM — The latest activity of the Parker School District is teaching learners skilled jobs in anticipation of employment in local textile mills. Preliminary investigation in two communities indicated that there were more than 100 young people from 16 to 25 years of age, neither in school nor working. During recent months 17 of these were offered an opportunity to learn skilled jobs, such as weaving, spinning, spooling, winding, etc., along with the regular day-school students. Classes are sandwiched in between regular work. No attempt is being made to train these boys and girls to handle a full job, but they are being brought to a point where the mills can afford to give them the finishing touches necessary for holding down a job. This experiment has been so successful that the vocational department plans to offer a special 12-weeks course exclusively for learners during the summer. This work is financed by Federal, State, and local vocational funds, and further help is being sought from the National Youth Administration. Teachers are regular high-school instructors.



1. New vocational school building
2. End view of new library and cafeteria
3. Parker gymnasium building
4. Parker auditorium seating 1600

Greatest Prosperity in History

Foreseen after November election by Murchison at Alabama convention

WHICHEVER PARTY WINS, the presidential election in November will mark the beginning of an era of prosperity greater than any we have previously known, Dr. Claudius T. Murchison, president of the Cotton-Textile Institute told the Cotton Manufacturers Association of Alabama at its annual meeting last month in Mobile, Ala.

"We do not yet know what men will lead the rival parties or just how the conflicting issues will be joined," he said, "but no one who has followed the deliberations of the present session of Congress can fail to see that the spirit of tolerance is coming to the front. Not infrequently we find a good word being said for the business man as a necessary part of the social and economic system."

Pointing out that the cotton industry has suffered during the last three months one of the sharpest and most severe price declines in its history, Dr. Murchison said the "situation is not out of hand and should not become so if the industry formulates its policies in line with clearly evident facts, and if Congress does not burden cotton with special taxes, ostensibly to help the farmer."

In this connection, he indicated that the threat of a processing tax on cotton, in the form of a marketing certificate plan or otherwise, appears for the moment to have passed.

Concerning inventories, Dr. Murchison said, "The statistical position of the industry has not yet reached the stage which can be called unfavorable. Generally speaking, mill inventories are not burdensome, and nowhere within any major classification of the industry can they be called excessive. On the contrary, mill stocks in many lines are considerably below the long-time average and in certain outstanding cases they are the minimum of normal working requirements.

"We have no means of measuring exactly the stocks held by converters, fabricators and distributors, but there is convincing evidence that their inventories are far from heavy. Under no circumstances should the mills be misled into thinking that the markets are being weighed down by surplus goods. This is not true of any division of the market over the entire area from the mills to the retailers."

Urging the manufacturers to protect and maintain a sensitive market, Dr. Murchison asserted that "under the present interpretation of our anti-trust laws it is not possible to advocate or to adopt programs of collective action even if there were a desire to do so. But there is no law enjoining the exercise of individual judgment or frustrating the caution and wisdom which are necessary to meet an emergency condition."

Paul A. Redmond, head of Alabama Mills, Inc., Birmingham, retiring president of the association, suggested in his report that now is "a good time to work out a plan to reduce Japanese competition" in view of the expiration of the Japanese trade treaty. He also urged the membership to keep closer contact with the representatives of the people in both State and National capitals.

Claudius T. Murchison, president of C. T. I. (left) and Paul A. Redmond, president of Alabama association (right), at opening session April 4

An address on Alabama cotton was presented by J. T. Belue, extension specialist of Auburn Polytechnic Institute, who asserted that Alabama is on the verge of producing a grade and staple not excelled by any other State.

Roland H. Gray, of Goodyear-Decatur Mills, in reporting for the legislative committee, urged careful study of a proposed merit rating system under the Alabama Unemployment Compensation Law, which, he said, if passed by the Legislature may mean the saving of large sums of money for Alabama textile mills through a reduction in the present 2.7c. payroll tax.

R. W. Jennings, past president of Alabama association (left) and Oscar Johnson president of National Cotton Council (right) at banquet

At the business session, Joe L. Lanier, assistant treasurer, West Point Mfg. Co., Lanett, was elected president of the association, succeeding Mr. Redmond. Ben C. Russell, of Russell Mfg. Co., Alexander City, was named vice-president of the group; J. Craig Smith, of Avondale Mills, Sylacauga, became treasurer. Dwight L. Wilhelm, of Montgomery, was reelected executive secretary.

Retiring-president Redmond became chairman of the board of directors; R. W. Jennings, of Lanett, Wayland B. Pickard, of Cordova, and B. G. Stumberg, of Tallassee, were elected to serve one year on the board. Hugh Comer, of Birmingham, was named a director to fill a vacancy.

The association closed its meeting with the adoption of a resolution calling upon Congress to pass the Walter-Logan Bill, designed to affect the many administrative offices in Washington.

Seen at Philadelphia Show

New developments in equipment for knitters, throwsters, and finishers

"WHAT'S NEW?" That was the question asked most frequently by mill men attending the 36th annual Knitting Arts Exhibition, held in the Commercial Museum, Philadelphia, April 15 to 18. The throwsters, knitters, dyers and finishers who were unable to visit Philadelphia and see the recent developments displayed by many of the 200 exhibitors will find below a report of new and improved equipment brought out since last year's show.

As was anticipated, everything pertaining to Nylon proved to be of outstanding interest. Of the three types of Nylon preboarding machines which were expected to be on display, only one was actually exhibited, and that one not in operation. A spring-tube carsier for Nylon was shown by one manufacturer, a sewing-machine producer featured a machine for seaming Nylon hosiery; and several chemical companies displayed finishing agents for Nylon. Nylon sewing thread for seaming and looping, hosiery display forms for Nylon, and packages for Nylon hosiery were other items on exhibition.

Latest development in full-fashioned hosiery machines was the heeler described in our April issue for inserting French heels in blanks knitted on either regular knitter or single-unit machines.

Newest among half-hose machines was a 3-in., 180-needle, 54-gage plain machine, with a device for knitting in elastic-yarn tops, dual control, and 8-step 48-move patterning equipment for selection of float or tuck-stitch pattern effects in either top or leg. The manufacturer of this machine also displayed several other types of equipment fitted with the dual control and other new attachments. These included a 19-step, wrap-stripe machine with new horizontal striper and dual control for stripes and tuck stitches and color-within-color features; an 8-step wrap-attachment machine (18 color) for knitting elastic tops, equipped with web take-up and new breaking-thread feature and dual control; a true-rib self topping machine with new horizontal striper and horizontal control; and a split-foot machine with elastic lay-in device, web take-up, and breaking-thread feature.

Another manufacturer featured an automatic true-wrap machine suitable for making full-length ribbed half hose or ribbed-top, self-supporting slacks; it is equipped with a new chain-striping attachment designed to give a wide latitude of horizontal yarn-change colored striping. This company also displayed a links-and-links machine of the type described in our August, 1939, issue, for producing hose of the popular English broad-rib style.

A manufacturer of loopers has equipped his machine with an adjustable needle lever which makes it possible to raise, lower, or insert a new needle without moving any other parts of the sewing bracket. Another firm had on exhibition loopers which produce 2-thread in-and-out lockstitch.

A spring-needle machine shown this year for the first time featured 52 feeds on a 48-in. cylinder; it will produce a complete range from overcoating to lightweight silk or rayons, in a variety of patterns.

Four new circular knitting machines were shown in one exhibit. One was a machine for swim suits and sweaters, equipped with 24 feeds and a similar number of pattern wheels 5¼ in. in diameter. A second machine, for producing new baby-shaker styles, is available in all cylinder diameters, at intervals of 1 in. The third machine features 24 feeds and 24 pattern wheels. The fourth, an interlock machine, also has 24 feeds.

An improved rib-body machine for knitting snuggies and similar garments was equipped with a double cap which controls three different lengths of butts and casts off. A warp knitting machine first shown at the 1939 exhibition has been improved to increase efficiency, make possible a more uniform stitch and operate more precisely.

Shown for the first time was a high-speed, narrow-beam warper for use in conjunction with warp-knitting machines; the warper operates at speeds up to 600 yd. per min. Also exhibited was the new high-speed, full-width beaming machine described in our March issue. A manufacturer of knitting-machine parts exhibited new verge plates to fit German-type machines.

THROWING MACHINERY exhibits, as usual, were comprehensive. In a new 5B machine shown by one manufacturer, several features were noted: over-end delivery has become standard equipment; there is a faster, more accurate stop-motion; improved spindles carry up to 1 lb. packages; bobbins with from 4- to 8-in. traverse can be accommodated; balloon control is made possible by the design of the traversing thread guide. An uptwister shown by the same manufacturer featured an improved headless-package take-up said to give accurate square-end packages, a new traverse mechanism and ability to take 1 lb. packages.

A second throwing-machinery manufacturer showed a doubler-twister with a new tension device for handling the acetate end of combination yarns. A new uptwister in the same booth featured speeds of 19,000 r.p.m. on single-end silk crepe, and combination ball- and roller-bearing spindles. Also in this display was a new headless-package twister for combination yarns; it is capable of producing up to 20-oz. packages; this machine is also adapted for handling rayons from perforated cans to tubes.

An improved doubler-twister has these features: self-contained unit control, through which power is directly transmitted for every requirement; improved spindle-swing adjustment, to effect proper belt-whorl contact; traverse motion making possible up to 7-in. traverse; improved motor drive; and a quick-acting stop-motion; over-end delivery is optional; packages run up to 32 oz.

An improved winder has a new arrangement for conditioning the yarn; by eliminating some of the bends in the yarn line, the attachment reduces tension in the yarn.

On its precision winder one company featured a new diaphragm disk tension which is particularly suitable for use in dry winding of fine deniers of silk and rayon; and which gives more positive control of tension, especially when the tension is low; features of the tension include the following: a three-pointed spring which does not disturb the twist; a new system of levers which enables one to obtain any desired tension at the start and finish of the winding and to change the tension as the yarn builds

General views of Knitting Arts Exhibition

up on the cone; an adjustment for keeping the tension disk in line with the cleaner or slub catcher; and means for taking the device apart for cleaning with the finger without disturbing the settings. This company also showed an improved model of the automatic winder displayed last year; this machine is now undergoing extensive mill tests prior to commencement of large-scale production.

Sewing-machinery manufacturers had several new and improved machines on display. In one booth there were a machine for attaching one-piece extension button strip to shirts and knitted garments; and another for attaching split-tube borders to necks and armholes of knitted undershirts.

Another sewing-machine manufacturer showed an overseaming machine which operates at speeds up to 6,000 r.p.m.; improvements include automatic lubrication and a hemming device. Automatic lubrication has also been added to a machine for 2- and 3-needle felling operations, and to a lockstitch machine; speeds up to 4,500 r.p.m. are obtainable on both machines. An improvement to a machine for attaching elastic bands is a measuring device which so feeds elastic, under tension, that a predetermined length, relaxed, goes into each garment.

Another producer of sewing machines showed two general-purpose machines which are automatically lubricated and attain a speed of 5,000 r.p.m. A new hosiery seamer features simplicity of construction, sufficient speed to keep the best operator busy (6,000 r.p.m. top), a simple uncurling device for blank edges which is said to prevent broken selvages during high-speed operation.

Another manufacturer introduced a seamer and companion hemmer for handling light or heavy sweater goods, which operates at 4,500 r.p.m., and an underwear hemmer, said automatically to catch all seams on blind hemming; its speed is 5,000 r.p.m.

DYEING AND FINISHING. Two new stainless-steel dyeing machines, a package-dyeing machine, described in our November, 1939, issue, and a reel-type machine for knit goods, were shown for the first time. The reel dyeing machine is of the completely inclosed type and has a number of accessories and special features to permit use of vat, naphthol, and developed colors. An improved inspecting machine for either tubular or flat knit fabrics is equipped with a fluorescent lighted inspection board. Also of interest were exhibits featuring new applications of laminated Bakelite. The rotary boarding machine introduced two years ago was shown with many improvements in design. A new single-package laboratory dyeing machine, and a laboratory padder, were also shown.

New testing devices displayed included two types of snag testers; an accelerated fading unit of new design, a tester for abrasion resistance of woven and knitted fabrics which was described in detail in our April issue; a lubricity tester, for measuring the frictional resistance of yarns; a device for determining accurately the density of yarn packages prior to dyeing; a machine for testing the water absorbency of yarns of various types; and a device for determining the completeness with which twist in yarns has been set.

In addition to finishing agents for Nylon hosiery, there were displayed a variety of new chemical specialties including three new high-strength silk-soaking oils, several new synthetic detergents and wetting agents, and a number of synthetic-resin finishes for silk hosiery.

Recent improvements made in the field of fluorescent lighting were illustrated in the exhibits of six manufacturers. Examples of latest developments included a center-aisle mounting unit designed especially for use in full-fashioned hosiery mills; a high-wattage industrial type luminaire taking two 85-watt, 58-in. tubes; and several units in which capacitors are incorporated to correct power factor and eliminate objectionable flicker or stroboscopic effect.

A machine for conditioning yarn on packages, cones, or cheeses which one manufacturer exhibited has an improved variable-speed drive which regulates addition of moisture to correspond to density of wind or type of material. A producer of control equipment featured a simplified humidity controller which operates without use of wet- and dry-bulb thermometers.

All-metal, precision spools, for high-speed twisting, with barrels of magnesium alloy and heads of aluminum or stainless steel, were shown by one producer. Other textile parts made from this alloy were exhibited in another booth. They included extruded tubes, for bobbins and spools; traverse bars and ring rails for twisters; needle, sinker, and presser bars, as well as cloth rolls, for tricot machines; beams for high-speed warpers, etc.

Several marking and packaging improvements were noted. One exhibit introduced a machine which cuts, folds, presses, ejects, and packs into containers, labels at the rate of 2,500 per hr.; and a low cost, high-speed companion machine for fusing labels to garments. Also shown for the first time was a method of permanent identification of fabrics, hosiery, and garments by use of indelible, invisible ink. A third marking device shown consisted of a machine for printing pinless tickets for hosiery and other textiles. Marking machines of another maker have been improved by addition of an automatic ink feed which makes possible use of fast-drying inks and a counter which stops the machine automatically when a predetermined number of labels are marked.

Oppose Third Shift

Hosiery association meeting analyses factors making for present difficulties

IN OPENING THE MEETING OF the National Association of Hosiery Manufacturers in Philadelphia on April 17, Austin H. Carr, president of Durham Hosiery Mills, said that the full-fashioned branch of the industry was in deplorable condition due in part to Japanese manipulation of silk, too early an Easter, unfavorable weather, Nylon, and over-production by the mills.

Earl Constantine, president of the association, spoke strongly of the need to curb the trend toward three-shift operation. He scored the raw silk situation as "primarily responsible for the present unfortunate price structure which applies to silk hosiery."

E. N. Ditton, of Gotham Silk Hosiery Co., offered the report of the Association's Research Committee which focused on tests for consumer guidance.

The board of directors elected J. E. Millis, of Adams-Millis Corp., as chairman, succeeding Austin H. Carr; and Irving K. Hessberg, of Van Raalte Co., as a vice-chairman, succeeding R. O. Hoffman, of Morganton Full-Fashioned Hosiery Co. John Bromley, of Quaker Hosiery Co., was reelected a vice-chairman. Nathaniel Judson, of Mock, Judson, Voehringer Co., was elected treasurer to succeed Marshall V. Moss, of NoMend Hosiery, Inc. Five new members of the board are F. W. Boehmen, P. W. Eshelman, J. J. Kronenberg, F. Seifart and R. P. Shapard, Jr. Earl Constantine was reelected president and Reuben C. Ball, secretary.

John Wyckoff Mettler, of Interwoven Stocking Co., called attention to Father's Day (June 16) as a promotional feature for men's hosiery, saying it was second only to Christmas as a sales period in this field.

In his annual address, Mr. Constantine said in part:

"The price of raw silk is today not far from what it was a year ago. However, during that year it performed unusual gymnastic feats with ups and downs which came rapidly and were extreme in degree. This performance in the price of a commodity creates unusual difficulties for its users and eventually proves seriously damaging to the commodity itself.

"The much discussed new yarn of Nylon is now with us commercially . . . During the initial period of manufacture, it is expected that waste will be high; rate of production will be low, and percentage of irregulars will be unusual. In addition, the new yarn requires one added operation, namely, pre-boarding. These factors put together are likely to result in unprofitable operations for the manufacturer initially.

"We had every reason to believe that the Trade Practice Rules which have been in the process of development during the last two years, would have been fully developed and in effect by now. A sound and practical code of ethics governing the stamping and the merchandising of our products is needed and will be welcomed not only by the manufacturer but by the distributor and the consumer.

"The next Hosiery Industry Conference will be on Jan. 9 and 10, 1941, in New York. The conference held January, 1939, recorded itself as opposed to the establishment of three-shift operation. I regret to report that during the last year three-shift operations have increased.

"While many more three-shift operations exist today than did a year ago, the total of such operations is not yet so large but what there is time to hold it in check and perhaps to reduce it. Many manufacturers who are operating in part or in whole on three-shifts have indicated to me their willingness to discontinue such operations provided competitors will do the same. The feasibility and legality of such procedure should be considered. The annual consumption of our product, including women's hosiery, has reached apparently another plateau at which demand is likely to remain for several years. If there is no sound basis on which we may expect substantial increases in demand, what is there to be gained, as an industry, by materially increasing our productive capacity when we have already remained in a buyer's market all too long?

"Labor conditions in the industry are peaceful. No serious disturbances have occurred during the year. Our relations with labor continue good."

After explaining that test methods for mill control and comparison have been established and detailed in the pamphlet "Methods of Testing Hosiery," Mr. Ditton went on to report in reference to demand for test methods from consumer groups.

He said: "Sound consumer standards cannot be intelligently developed and established without first developing equally sound test methods which will serve as the basis for such standards.

"Very little has been done to find what relationship exists between results of existing tests and amount of wear or satisfaction found by the consumer. Various types of machines have been developed to measure abrasion resistance of toes and heels. Little has been done to find out if construction 'A' which, for example, withstood 1000 rubs, was twice as good when worn as construction 'B,' which only withstood 500 rubs. Maybe, in actual wear, 'B' would stand up as well or even better.

"Stockings of four different constructions have been knit to specifications drawn up by this committee, and will be tested by the various known methods of test at National Bureau of Standards. An extended service test will also be made and the results correlated with the laboratory tests.

J. E. Millis, elected chairman of National Association of Hosiery Manufacturers

Nathaniel Judson, elected treasurer of N.A.H.M. at recent annual meeting

Wage-Hour Enforcement Promised

Col. Fleming addresses Underwear Institute—Roy Cheney's annual report

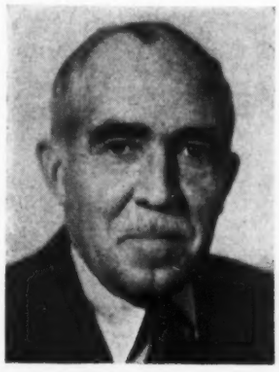
WAGE-HOUR MATTERS were dominant at annual meeting of Underwear Institute in Philadelphia, April 18. The meeting's high spot was address by Col. Philip B. Fleming, Wage-Hour Administrator, who stressed the Opp Cotton Mills case as establishing permanence of the law, instanced cases of business improvement resulting from the minimum wage, pledged strict enforcement, and held out promise of fair, open-minded hearing on the underwear industry's particular current difficulty, learner regulations. It was Col. Fleming's first appearance before a major textile association.

Officers reelected for the coming year include Ralph M. Jones, Utica Knitting Co., chairman; Grover C. Good, Globe Knitting Works, first vice-chairman; Walter W. Moyer, Moyer Underwear Mills, second vice-chairman; Oscar Gridley, Utica Knitting Co., treasurer. Roy A. Cheney is president.

Colonel Fleming spoke in part as follows: "The Opp case was a challenge to the constitutionality of the Fair Labor Standards Act in a number of important respects, specifically those sections of it having to do with the issuance of minimum wage orders. . . . The court said, through Justice McCord, 'Whatever discrimination may be pointed out in the conflicting evidence, labor should not be called upon to equalize the discrimination by bearing all the load. . . . The provision of the Act requiring the Administrator to give "due regard" to geographical regions in the appointment of committee members did not require him to apportion membership on the committee with mathematical precision. It was the duty of the Administrator to exercise sound discretion in this regard and we do not find that he abused that discretion. . . . We are of opinion and so hold that the enactment of the Fair Labor Standards Act was a valid exercise of the power given to Congress by the commerce clause of the Federal Constitution.

"I am bending my every effort toward speeding up the process of enforcement. Within the last four months we have been perfecting our organization in an effort to place the point of decision as close to those affected by it as is humanly possible. The regional director is now empowered to close cases of violations of the Act when the total amount involved does not exceed $50,000. . . . We are moving on to a program of systematic inspection under which we will visit plants as a matter of routine, rather than wait for a specific complaint. You can rest assured that the wage order for your industry *will be obeyed*. Strict and evenhanded enforcement is vital and you have my word that you will get it."

IN HIS ANNUAL ADDRESS President Cheney warned against considering the minimum wage as a closed matter when



Col. Fleming, Wage-Hour Administrator, who praised cooperation of underwear men

he said, "These minimum wage scales are not at all permanent, because the statute directs that the Administrator shall reconvene the industry committees from time to time to reach the 40-c. minimum wage scale for all industries as soon as possible. I mention this because it should be always in your minds in figuring your costs. It is my hunch that under the law, and because of the mandate of the law, we will be faced again this year with a new industry committee.

"Our surveys of underwear selling, supported by occasional data of the U. S. Bureau of the Census, indicate a decline in proportion of underwear being sold through wholesalers. We find in checking some of our cost studies that selling expense alone of the direct selling mill is about 19%, whereas in the wholesale mill it averages 6%. This puts obligation on the mill selling the retail trade of figuring its costs correctly. We feel that in keeping with the Robinson-Patman Act and to insure that our industry keep astride of any important shift in distribution policies and to maintain its ledger accounts in the black, we must find the facts and face this problem honestly and intelligently."

The problem of underwear shrinkage through laundry processes was reported on, and Mr. Cheney stated that the matter was close to solution, not by co-operation of the laundries, but by a manufacturing process to control shrinkage.

Ralph M. Jones, in analyzing the learner situation, said in part, "There could be no temptation to employ learners unless their services are required over a long future. To fill vacancies occurring in the working force and to grant to untrained people every opportunity for employment, a blanket 5% learner permit based on the number of names on the payroll should be granted for a 12-week period at two-thirds the statutory minimum." He expressed belief that a mill owes an opportunity to people in its own locality, and he would oppose regulations to compel hiring experienced help from elsewhere, when daughters, sisters and wives of loyal employee are seeking work.

"Unless we can secure a satisfactory learner permit," said Mr. Jones, "I believe we should take the matter to the courts.

Miss Ruth O'Brien, chief of Textiles and Clothing Division, Bureau of Home Economics, Dept. of Agriculture, spoke on the measuring project covering nearly 150,000 boys and girls from four to 17 years of age done with aid of WPA, in which 35 measurements and weight were taken of each child. The results prove conclusively, she said, that age is the most unreliable predictor of a child's measurements, and that combination of height and hip-circumference was the best basis on which to size garments.

Thomas J. Fitzgerald, chief statistician for manufactures, Bureau of Census, spoke on the Biennial Census of Manufactures for 1939 which is being taken concurrently with the 16th Decennial Census.

Cotton Hose . . . for Somebody Else!

A $60,000 experiment with a great big question-mark after it

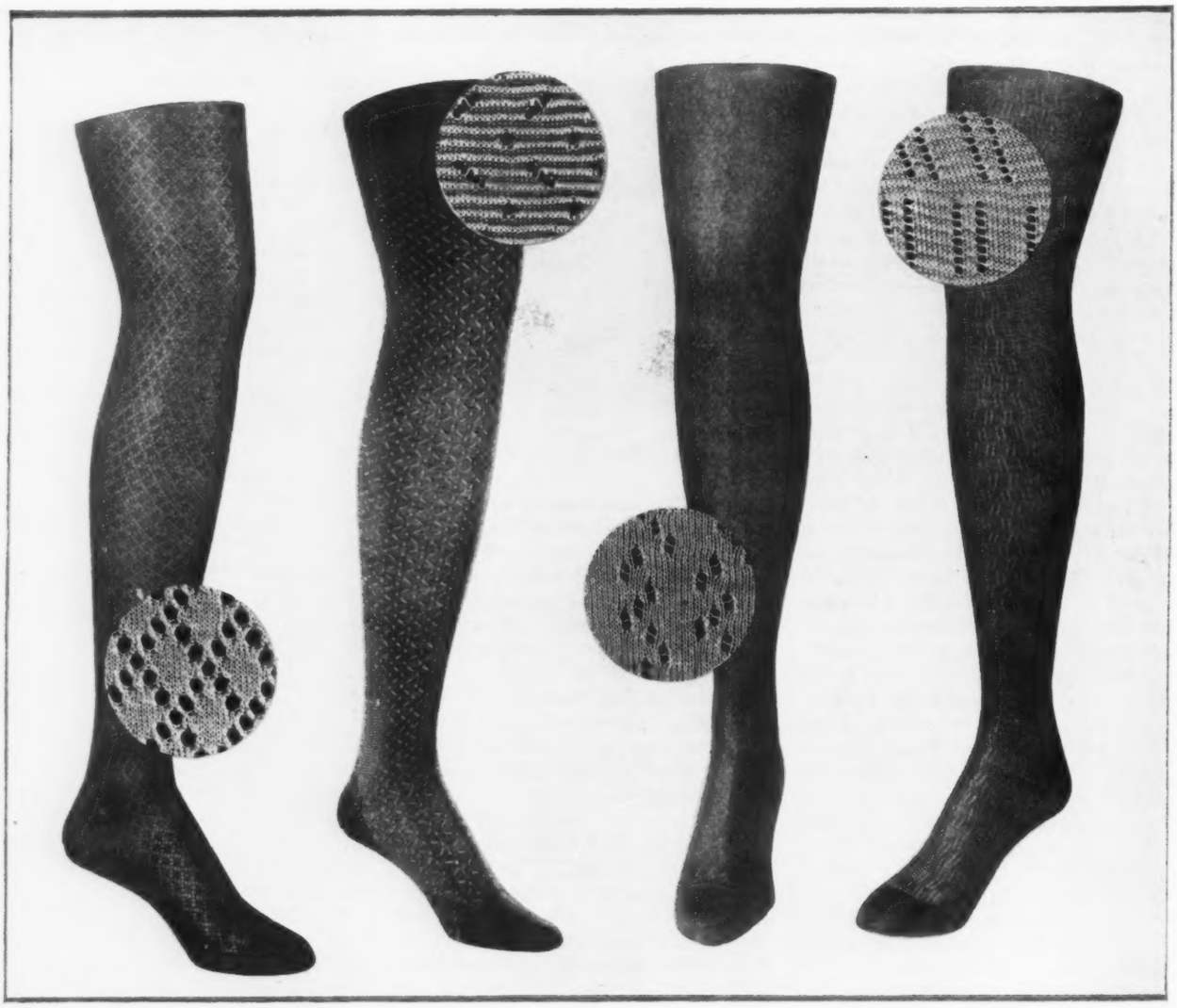
By SPECIAL CORRESPONDENT

A JOB IN EXPERIMENTAL WORK in cotton hosiery for women has been done over the last two years by Ruth O'Brien, chief of the Bureau of Home Economics, U. S. Department of Agriculture, and David Young, designer, plus a score of technicians and assistants. Finally on March 18 of this year the Bureau announced that 56 designs of full-fashioned hose had been released to manufacturers. And almost simultaneously the Gotham Silk Hosiery Co. announced it would manufacture and place on the market one of the designs —No. 106. Thus the perennial headline getter—cotton hose—in both the manufacturing and fashion world, again makes news.

This time there is a story behind the headline—but a big question mark after it.

Reviewing the hosiery situation we find that despite the increase in hosiery mills from year to year, the total hosiery production in 1937 was 10% less than the 1929 high. Two-thirds of that production was seamless hose. Most of the hose in all of the other third, which are full-fashioned, are silk and worn by women. In the last 18 years, cotton hosiery production has declined all of 50%, and of the total women's hosiery cotton claimed in 1937 less than 5% compared with 72% in 1919.

In the years since 1919—and particularly since 1925—Judy O'Grady has become the Colonel's Lady so far as her legs are concerned, for whether she can afford it or not she encases them in silk—sheer, lovely and sun-tan.



Four designs typical of government-styled cotton hosiery. Circles show actual size samples

"A woman is going to wear only the items which become her legs"

Budgeting her family to a diet of grits and wienies, she herself buys and wears silk hose. The result is that silk hosiery, which in 1919 was less than 4% of the total women's hosiery production, in 1937 amounted to 86%—reversing position with cotton and then some! This trend has continued upward to date through 1939.

These were worrisome figures to certain Congressmen interested in the consumption of cotton. Visions of 100,000 bales consumed annually for hosiery manufacturing popped into their heads. And, working upon the assumption that women would revert to cotton hose provided they were properly styled, a Congressional appropriation of $30,000 was allotted to Miss O'Brien's department for cotton hose development. That was for the fiscal year 1938-39. Last July the amount was renewed for 1939-40. And the 56 designs are the result . . . net cost: something over a thousand dollars a pattern.

One of the most important phases of the work done by the Bureau of Home Economics was producing hosiery yarns from "known cottons." Operating a certain complete section of one of the best equipped combed yarn mills in the South, under a lease agreement, the work supervised by a Government expert, eight bales of Pima, SXP, Sea Island, and Coker's Wilds cotton were spun into yarn from 40's to 120s, the majority however being 90s, 100s, and 120s. The yarn was carefully segregated and all was turned over to the Bureau of Home Economics for further experiments which included abrasive and stretch tests. All yarns were gassed and mercerized.

The 56 designs range from plain knits for service to ultra-smart designs with mesh heels and toes and other style features for wear with dress shoes and sandals. Due to the muddy look of the plain knits, caused by short fibers in cotton, the importance of mesh designs in cotton hosiery must be stressed. This indicates a definite limitation in this field.

NOW AS TO THE QUESTION MARK. . . . There are two sides to the matter of their success as a cotton consumer. In the first place there is a quirk in woman's psychology which all the work of the Department of Agriculture may never wipe out. That is her feeling that silk stockings make her a lady, and a prosperous-feeling lady at that. I remember the story of my grandmother who during the Civil War ravelled out old silk dresses and knitted her own silk hose, saying that when she had to wear cotton stockings that would be the day the Yankees had licked her. And I had a friend who, back in 1932, when she heard her bank had failed, rushed to town and bought brown sugar and cotton hose, the two things which, to her, were symbolic of hard times. Then there is that smooth feeling that one gets when wearing sheer silk hose, which can never —never be had with even the loveliest high-styled cotton hose. And a woman introduced to that feeling of luxury is loathe to part with it. There are the more practical points that cotton does get baggy at the knees while silk does not; that dresses stick to cotton hose and nip-up at the back, but do not have that ungainly habit with silk; that cotton is subject to runs and snags just as well as silk; and that No. 106 is selling today at $1.00 a pair although Gotham itself advertises a silk hose with "thriftee top" for 69¢—and the chain stores still do well at 59¢.

This stocking has a plain leg with fancy top and lace effect at toe

On the other hand, there is the Cotton Stamp plan, which may entice those women entitled to purchase stamps to procure cotton hosiery . . . and there is the really important style element introduced by Schiaparelli: the heavy type hand-knitted cotton hose in red, white and blue to be worn with Mary-Jane slippers and sport clothes. In my mind that fad may use more cotton in hosiery than all the Government's 56 designs put together. But it is a fad, and if it uses as much as 50 bales of cotton I'll be surprised.

There is the old saying that "you can lead a horse to water but you can't make him drink." The Department of Agriculture may design and design, but a woman is going to wear only the items which become her legs. Slender, youthful types will probably continue to wear sox for sports, and heavy-ankled ones will wear silk because it is flattering, despite the outlay of the taxpayers' money in cotton hose designing, and despite the farmers' plight. Of course, I am sympathetic with the farmer, being a farmer's daughter . . . and cotton hose may be wonderful for somebody . . . but for somebody else, not me!

Throwsters Use Electric Heat

Find it advantageous in soaking, twist-setting, and other operations

By G. T. PERLEY
Pennsylvania Power & Light Co.

A prize winner in a contest sponsored by General Electric Co. among electric-power-company salesmen, the accompanying article is being published exclusively in TEXTILE WORLD. Progressive mill men in all branches of the industry will, we believe, be interested in the ideas contained.

ELECTRIC HEATING plays an important part in silk and rayon throwing. Uses to which it may profitably be put begin practically the moment the raw material is received, and end only when the finished product is finally shipped from the mill. Actual applications in several representative throwing plants are described in this article. In each case, use of electric heat has made it possible for the mill to produce its product better, or quicker, or more economically, or to improve working conditions for the employees.

As most silk throwing mills operate on a commission basis, it is important that shipments contain the desired amount of moisture. Sample skeins are therefore carefully weighed in the laboratory, before and after being thoroughly dried, to determine the percentage of moisture actually present in the raw silk. For this purpose a small electric drying oven is used. To determine the percentage of gum in sample skeins, an electrically heated boil-off kettle is commonly used.

In the soaking room, electric heat again plays a part. The warm water used in soaking vats can be heated either by an electric water heater, by electric immersion heaters permanently attached to the soaking machines, or by removable immersion heaters inserted in the open top of a steam soaking machine to convert it into an electrically heated machine (Fig. 1). In soaking machines which are heated electrically, an agitator or circulating pump is used to dissolve the soap and maintain a homogeneous mixture and give uniform impregnation. Following soaking, skeins are placed in an extractor, to remove excess water, and then may be hung on racks in an electric drying oven.

Rayon skeins, of course, are soaked to size, stiffen, and protect the yarn from the strains of winding, twisting, and other processes. Modern electrically heated soaking machines (Fig. 2) are now replacing the old steam-tub method of soaking and sizing rayon.

Twist setting is the next process at which electric heat enters the throwing picture. Of the four commonly employed methods of conditioning or setting the twist in silk yarn, the electric conditioning oven is one of the best (Fig. 3). This oven is equipped with electric strip heaters on each side, and has an electric immersion heater installed in a pan of water at the bottom of the oven to vaporize the water. A fan installed at the top of the oven circulates the steam vapor and insures uniform penetration. The oven is equipped with recording wet- and dry-bulb thermometers, and controls which automatically maintain proper humidity.

Electric silk conditioning ovens offer many advantages, the principal ones of which are as follows:

1. It is no longer necessary to operate steam boilers during the summer months; thus a saving in fuel results.
2. High-pressure steam requirements are eliminated.
3. Identical and uniform results are obtained. Time, temperature, and humidity for any type of silk or rayon can be duplicated from records kept of the actual treatment of all material that has gone through the conditioning oven. Forced-air circulation insures uniformity.
4. Streaking and spotting caused by condensation are eliminated. High humidity can be maintained without excess moisture, due to the system of forced-air circulation and to automatic control of humidity and temperature. Overheating and baking of skeins, and contraction at bobbin heads, are eliminated.
5. Life of bobbins is prolonged, inasmuch as they are not subjected to live steam.
6. Yarn strength is improved. Actual tests show electrically conditioned silk is approximately 10% stronger.
7. The automatic features of the equipment make it possible for a night watchman or for ordinary daytime help to charge the oven and remove the bobbins when a signal indicates that the run is completed.

Conditioning, after the thrown silk is finally wound on to the desired package, ready for shipping, is necessary to obtain the correct amount of moisture regain before shipping. For this purpose smaller electric conditioning equipment is available.

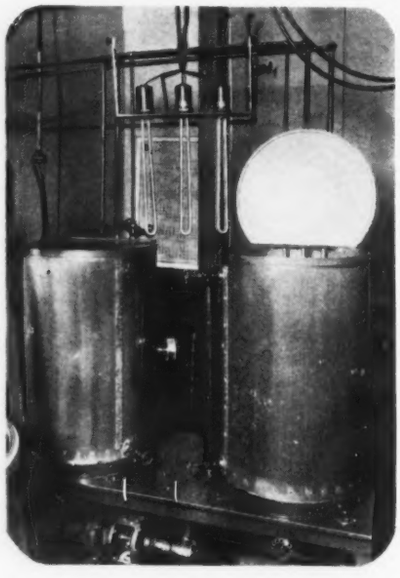


Fig. 1. Three immersion-type units for heating solutions in either of two soaking-machine tanks

POWER COSTS were questioned by prospective users when electric silk-conditioning equipment was first introduced. Tests were therefore conducted to determine power usage per pound of various types of conditioned yarn, and it was found that the unit cost was practically negligible, when compared to the inherent advantages.

For example, one of the most severe conditioning operations is that of setting the twist of 60-turns-per-in. rayon crepe. This is successfully accomplished by the electric silk conditioning

oven. When lower-twist silk is to be conditioned, the machine is set at a reduced temperature, and a much shorter time for processing is required. This results in a lower kilowatt-hour consumption.

For rayon yarns, the oven is set at a wet- and dry-bulb temperature of 180 to 185° F., or approximately 100% relative humidity. When the yarn is first inserted in the oven it absorbs moisture, and the relative humidity drops; however, as moisture is continually added, the wet-bulb temperature rises to within 5° F. of the dry-bulb temperature, and follows this relation throughout the run.

Many mills have installed equipment of the type so far discussed in this article. One such is Georgetown Silk Co., Wilkes-Barre, Pa., which employs electric heat in its testing laboratory, main plant, office, garage, and storeroom. The laboratory utilizes a 3-kw. drying oven with a small exhaust fan to dry sample skeins, a 4,800-watt hot plate for boiling-off kettles, and a 3,000-watt conditioning oven. For conditioning and twist-setting on a production basis, two 20-kw. electric conditioning ovens are used.

Auxiliary electric heaters installed in the office to overcome uncomfortable cold-weather conditions were found sufficient to warm the office during spring and fall, eliminating the necessity of firing the heating system when heat was required in the office only. In an unheated outlying garage and storeroom, a 200-watt strip heating unit is installed in an insulated heating chamber around the valve controlling the sprinkler system, so that the water will not freeze. The saving in cost over extending a steam heating supply line was appreciable.

Atwater Silk Corp., Plymouth, Pa., uses one 10- and one 15-kw. heater to provide warm water for its soaking vats. Thus, the heating plant can be shut down during the summer months, with resulting savings.

This plant is also using three 2-kw. electric urn heaters for its boil-off kettles; three 20-kw. electric silk conditioning ovens; and 3 kw. of fin-type heating units, to provide hot air for laboratory drying ovens. The electrical heating equipment in this mill eliminates all process-steam requirements from the boiler plant.

Leon-Ferenbach Silk Co., Wilkes-Barre, Pa., is another throwing plant utilizing electric heat. For some time, electric water heating for silk and rayon soaking had been suggested as a means of shutting down the steam plant during the summer. Steam was required for water heating only; three 20-kw. electric silk conditioning ovens had previously been installed. However, the cost of a non-corroding electric water heater and non-corroding storage tank was considered too high. The objection was finally over-ruled, and three 4-kw. immersion-type heating units installed on a portable counter-weighted U-shaped bracket which can be placed in either of two soaking tanks which are adjacent.

Tests showed that it took from 15 to 18 min. to heat the approximate 30-gal. of solution required for each tank. Since the soaking required from 25 to 30 min., the operator had a leeway of approximately 15 min. in which to change the heating unit from one tank to the other, to prepare the tank for the next run.

The wooden emulsion tank of five-barrel capacity is maintained at 125° F. 24 hr. per day by means of a 1-kw. immersion heating unit installed horizontally at the base of the tank below the circulating paddle. A thermostatic control operates the heating unit intermittently, as required.

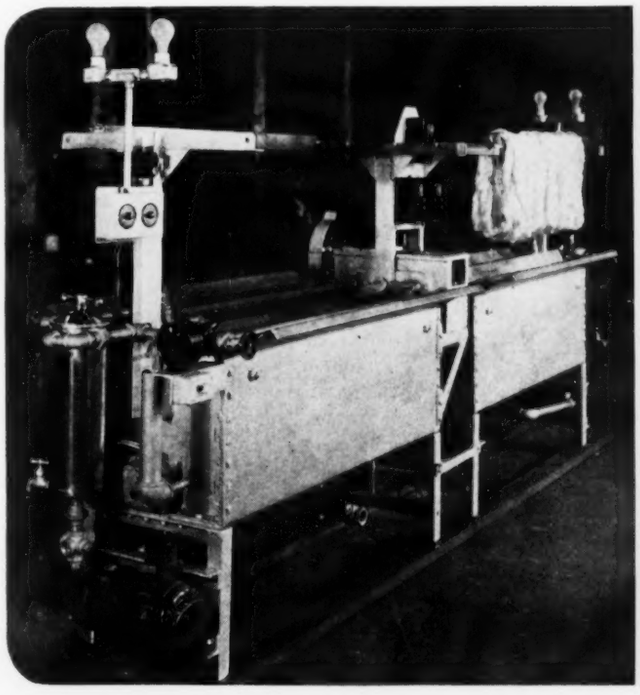


Fig. 2. Modern electrically heated soaking machines

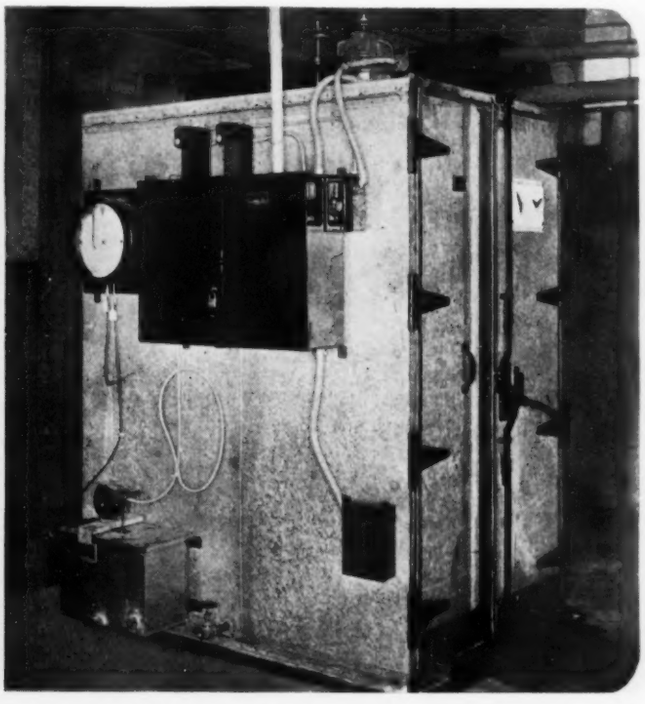
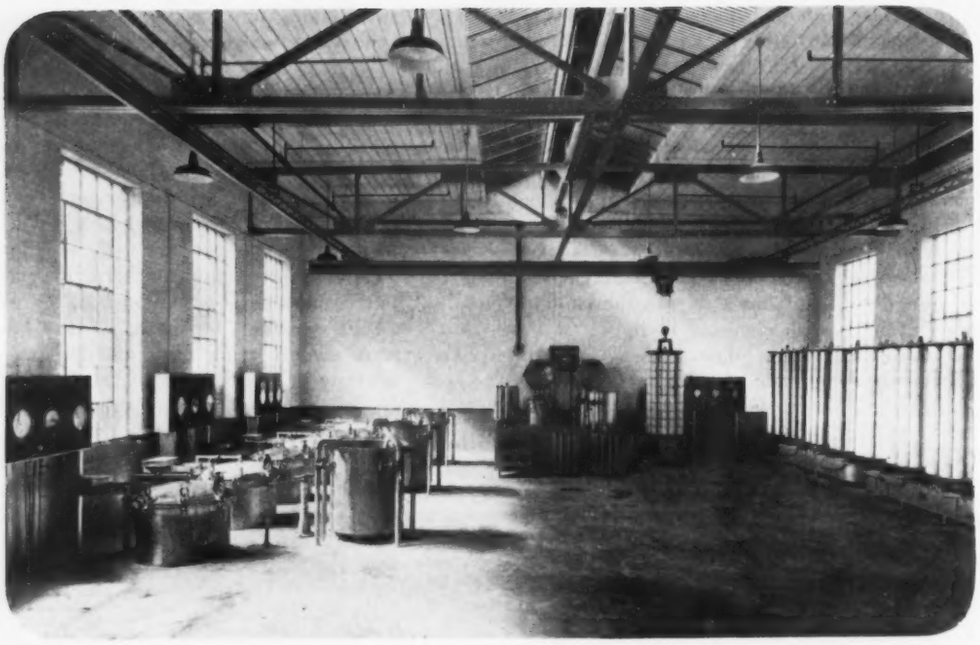


Fig. 3. Electric conditioning oven for setting twist

These examples indicate a number of uses which have actually been made of electric heating in the throwing industry. There follows a summary of prospective applications of electric heating in the average throwing plant, with the approximate average connected load indicated in each case:

Boiling-off-kettle hot plates, urn heaters, or self-contained kettles, 4-kw.; laboratory drying oven, 3 kw.; laboratory silk-conditioning oven, 3 kw.; two 300-gal. water heaters, 20 kw.; soaking machines, 20 kw.; converted steam soaking machine, 12 kw.; emulsion heater, 1 kw.; drying ovens, 60 to 120 kw.; silk conditioning oven for setting twist, 20 to 24 kw.; silk conditioning oven for quills or cones, 10 to 20 kw.; office heating, 6 to 10 kw.; sprinkler system valve heating, 200 to 1,000w.



A self-supporting roof makes possible the use of crane and electric hoist at any point in room; note continuous skylight and large area of clear floor-space

Modern Dyehouse

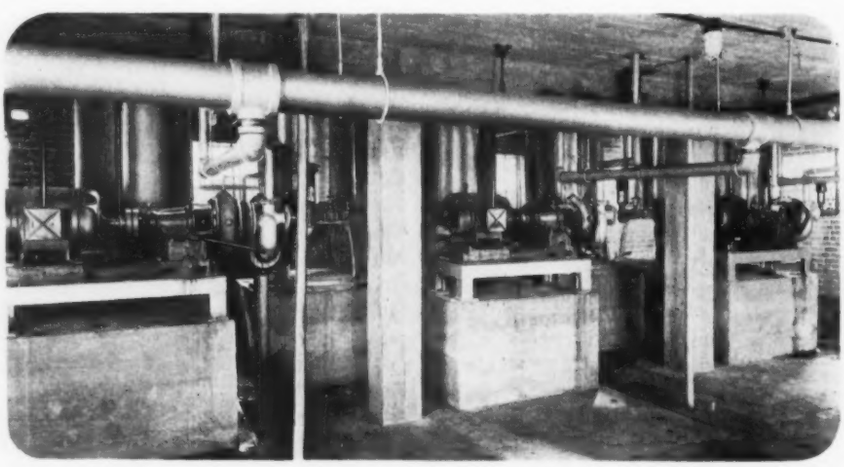
Compact design and efficient layout in new unit at Georgia-Kincaid Mills

MODERN THROUGHOUT is the new dyeing plant recently put into operation by Georgia-Kincaid Mills, Griffin, Ga., for the exclusive processing of fast-color yarns going into the well-known Dundee Towels. Compact, convenient, and equipped with the latest models of stainless steel dyeing equipment, the new unit has created a great deal of interest in the South because of its advanced design and unusual features. A brief description of the plant, written before it was put into operation, appeared in our November, 1939, issue; the following more extensive description and the accompanying illustrations give a clearer idea of the construction and layout.

The new plant is adjacent to Mill No. 1, which weaves the bulk of the colored yarns produced, and is adjacent to the slasher room so that dyed yarn on warp beams can be transported to the slashers with a minimum of effort. This type of work was formerly carried out at Lowell Bleachery South, located some distance away in another section of Griffin.

The building, 42x62 ft., is of brick, steel, and reinforced concrete construction, one-story with basement. Machinery is arranged to get the greatest benefit from available floor space, as can be seen from the accompanying photographs and diagrams. A unique feature is the mono-vent continuous ridge-type ventilator, supplied by Burt Mfg. Co., which extends over the entire length of the plant. This ventilator is equipped with a new type of balanced damper and automatic heat valve. The operators are assured of a comfortable working condition as a result of proper ventilation and thermostatically operated temperature controls; all fog is eliminated.

A continuous skylight, furnished by Pennsylvania Wire Glass Co., provides adequate natural light through special corrugated actinic glass. The roof of the building is self-supporting so that no columns or posts are necessary in the bleaching, dyeing, and drying room. This absence of obstructions makes possible the use of a crane with electric hoist at any point in the room to handle the heavy beams and package carriers loaded with yarn as they go to and from the dyeing machines, pressure extractors and dryers. The crane and hoist were supplied by American Monorail Co.



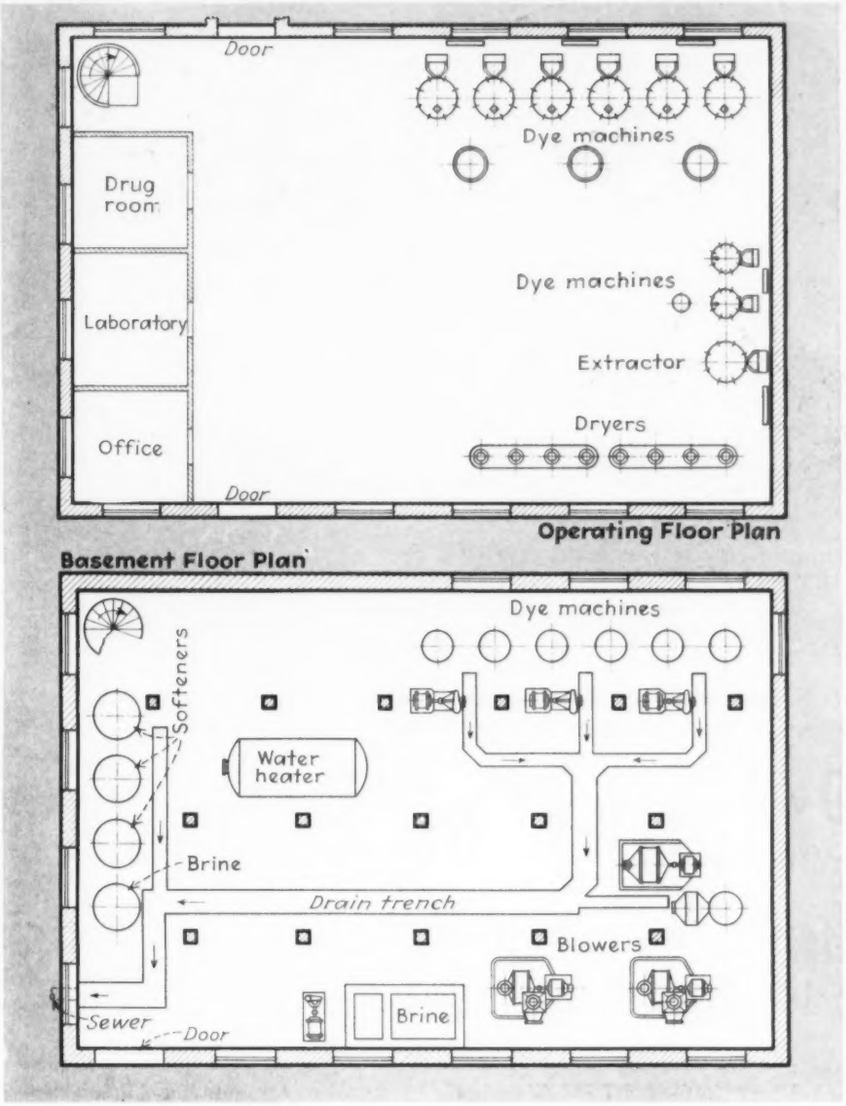
Dye-liquor circulating pumps and glass-insulated motors

Steel trusses and beams were painted with Rust-Oleum, a rust-preventive paint, manufactured by Rust-Oleum Corp. The interior walls of the dye house are a very light steel gray, with a darker gray dado. A 2-in. band of red separates the dado from the lighter gray above. This unusual color scheme has proved to be suitable for a dye house and also to add a distinguishing bright touch.

Filling yarns are dyed on packages; warp yarns, on beams. Major dyeing equipment consists of three two-kier Gaston County Dyeing Machine Co. stainless steel automatic dyeing machines and two 50-lb. capacity stainless steel bleaching and dyeing machines. Two-kier machines have a capacity of 600 lb. of packaged yarn per batch. The machines are fitted with automatic time-temperature controls with automatic dye-liquor flow-reversing mechanisms. All automatic controls are mounted on a panel board installed at the rear of the dyeing machines. Other Gaston County equipment includes a pressure-type extractor and two four-part dryers equipped with Roots-Connersville multi-stage blowers. All this machinery is driven by Reliance Electric & Engineering Co. motors with glass-insulated windings designed to resist moisture and chemical fumes.

An office, laboratory, drug and mixing room have been provided on the operating floor. The laboratory is provided with a Gaston County 1-lb. dyeing machine made of stainless steel for testing purposes.

In the basement there is a storage-type hot-water heater made by Whitlock Coil Pipe Co., the water temperature being controlled by an American Schaeffer & Budenberg precision temperature controller. The hot-water heater speeds up the dyeing operation, as it is not necessary to wait for hot water for boiling-off and dyeing.



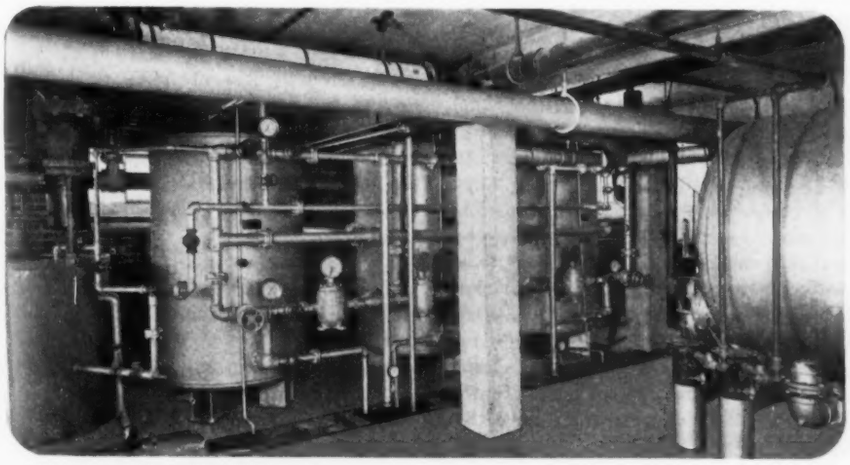
Scale drawing of operating floor and basement, showing machinery layout; plant is designed so that eventual expansion can take place without serious interference with operations

All water used in bleaching and dyeing is softened by vertical Zeolite softeners manufactured by Roberts Filter Mfg. Co.

The dye-circulating pumps, blowers and heaters are located in the basement. Automatic brine making and filtering is also provided for in the basement, making it unnecessary to use dry salt in the dyehouse.

Stainless steel is used in all machines that come in contact with bleach and dye liquors in order to eliminate any possibility of shading off or unlevel dyeing, which sometimes occurs in cast-iron or steel machines. The piping, valves, and fittings on the Gaston County machines are of heavy cast stainless steel, instead of the usual fabricated sheet steel. Steam used in heating the water and for drying is metered by a steam flowmeter manufactured by Morey-Jones, Ltd. Steam traps used throughout the complete plant were furnished by Crane Co.

J. E. Sirrine & Co., engineers, Greenville, S. C., designed the plant.



Water-softening equipment and storage-type water heater

A "paint wagon" has been rigged up at Callaway from an old automobile chassis; it contains 1- and 5-gal. cans, brushes, oil, glass, etc. One man does all mixing of paints in order to insure uniformity and economy

Painting at Callaway

Methods employed in mill and village adopted after close study of problem

TOO MANY MASTER MECHANICS or maintenance men who are responsible for painting mill properties think of paint only in terms of color, rather than in terms of the component properties and resistance to weather and other atmospheric conditions. Selection and application of paint should be given the same careful scientific attention that is paid to the selection and application of leather, metal, lumber, and other materials used in mill maintenance. Some of the larger mills, which purchase considerable quantities of paint each year, have found it necessary to study this problem just as they would study any manufacturing problem. Callaway Mills, LaGrange, Ga., is an outstanding example of a company which has gone into this matter thoroughly and with satisfactory results.

The paints used at Callaway have been carefully selected as a result of tests conducted over a period of several years. These tests have enabled the mill to choose the manufacturers' materials which are best suited to its requirements. Outside house paints, for example, are tested on seven houses of the same age and type of construction. Some years ago each of these houses was painted with a different type of paint in the desired color, and was then checked regularly to determine the degree of chalking, mildewing, blistering, etc. Results of these tests were used to establish the quality of paint finally selected.

There are approximately 1,500 houses in the LaGrange village of Callaway Mills. The maintenance program is arranged systematically so that 350 houses are usually painted each year. This means that a complete painting cycle is accomplished about every four years. It has been found that this frequency is such that usually only one coat is necessary. If the interval were longer, two coats, consisting of a priming and finishing coat, would be compulsory. This would not only increase the cost of painting the cottages, but would mean extra repairs and a more expensive cleaning job to prepare the surface. Furthermore, the durability of one coat properly applied closely approximates the durability of a two-coat job. The usual practice for two-coat jobs is to repaint every five or six years.

In a village containing several hundred houses there undoubtedly will be a few premature paint failures because of defective siding where moisture has been able to seep into the wood, causing the paint to peel. If five or six years elapse between paintings, conditions of this sort continue unnecessarily to become more and more serious. On the other hand, such weaknesses usually are corrected before much damage is done when the one-coat system with shorter interval is employed. Another advantage of the one-coat system is that it prevents the building up of heavy paint films which will eventually cause trouble. Erosion will usually wear down a single coat, so that by the time repainting is necessary the next coat does not build up an abnormally heavy film. A thin film is more elastic and will withstand to a greater degree the expansion and contraction of wooden surfaces without cracking or peeling.

When applying one coat of paint, the first point to remember is to select a material which is especially adapted for the sort of work intended. Before painting, the house should be wire-scraped and brushed in accordance with the general practice. All broken boards should be removed or renailed, and all areas where the bare wood is exposed should be spot-primed before application of the finishing coat. If the house is very old or has not been painted in a long time, two coats may be required. In this case, it is naturally necessary to use considerably more oil in reducing the first coat than in the last or finishing coat in order to satisfy the porosity of the surface.

The roofs of village houses are largely composed of rigid asbestos. However, the few metal roofs in the village are painted along with the outside walls. The metal (usually galvanized iron), if rusted, should be given a priming coat of a good rust-inhibiting primer to prevent the spread and growth of rust before the finishing coats are applied. If the galvanized iron is new and no rust has appeared on the surface, it should be primed with a zinc-dust galvanized-iron primer to secure proper adhesion.

Cottage porches are usually painted with a good grade of floor and deck enamel. Paint on these surfaces is subjected to more severe wear, possibly, than any other paintable surface around the house. Therefore, it is necessary that a good quality material be used and that it be carefully applied. Two coats of floor and deck enamel should generally be used for proper results.

Paint used inside the company houses varies somewhat with the type of house. A semi-gloss or flat-oil paint is used on the walls of the houses occupied by operating executives. However, a casein-lithopone paint reduced with water is usually employed inside regular village houses, because it can be put directly on wet plaster and is cheaper. In other words, the plasterers can repair walls right ahead of the painters without allowing time for drying. Kitchens and baths in all houses are painted with a gloss or semi-gloss enamel which can be washed. The residents have a choice of several interior colors from which to select.

PAINTING EFFICIENCY at Callaway has been greatly increased by means of a supply trailer rigged up out of an old auto chassis. This trailer has regular places for 1-gal. and 5-gal. cans of paint, buckets, etc. It also carries glass and a glass gun or device for shooting staples around glass to hold it in the window frames. Most glass panels at Callaway are standardized in size.

Photos by Ira Grimes

The 1,500 houses in the LaGrange village are painted at the rate of 350 a year, each house getting a fresh coat about every four years

Fittings for conduits, sprinklers, air pipes, etc., in mill are painted special colors, according to a definite system so that they can be identified at a glance; interior walls are gone over about every six years according to needs

Selection and care of brushes is an important phase of painting practice at Callaway. After testing some six or eight different brushes, the maintenance department settled on a 4½-in. stucco brush. These brushes are suspended in oil each night in a special receptacle on the trailer, instead of being thrown in a bucket. It is difficult to estimate the life of a brush because of the many variables involved in usage, such as condition of surface and kind of paint used. Cheap brushes, costing as little as 25c. each, are kept in stock for the convenience of individuals in the mill who want to paint small objects in various departments. Only the regular painters use the special stucco brushes.

Callaway finds it profitable to have one man do all the mixing of the paints. This insures uniformity and a minimum amount of waste. The individual painter is likely to "thin-up" on paint if it pulls too hard; i. e., add excessive amounts of thinner to achieve easier brushing at a sacrifice of durability.

No outside painting is done at Callaway when the temperature is lower than 36° F. because paint does not work well when it is cold nor does it adhere as well to the surfaces. No painting is done outside in wet weather.

IN THE MILL. There is no regular painting schedule at Callaway for inside mill surfaces. Walls in most manufacturing rooms are repainted about every six years, although this varies according to local conditions. High-gloss mill white is the common wall paint, with a 42-in. dado of gray dado enamel around the bottom.

Mildew is a problem in rooms with high humidity. Some paints contain chemicals designed to inhibit this condition; but the problem has not been completely solved.

In painting new surfaces, both masonry and wood, it is made certain they are thoroughly dry before the application of any paint. Over new wood surfaces a priming coat is first applied. Then all knots and sappy streaks are thoroughly sealed with shellac to keep them from bleeding through into the finishing coat.

Machinery, motor-bases, metal hangers, bobbins, etc., are usually painted with special enamel designed for use on these surfaces.

While Callaway has no frequency schedule for interior painting of the mill, it does have a very definite schedule of colors and types of paint for certain usages. For example, conduits, sprinklers, air pipes, etc., all have special colors so that they can be identified at a glance. This is usually accomplished by painting the fittings in the identifying colors, the main line of the different pipes being painted to correspond to the color of the adjacent wall surfaces.

Such a system of painting greatly improves the appearance of the mill

interior, and at the same time permits easy identification. Furthermore, since everything is standardized, the individual painter does not have to ask the superintendent of maintenance about each item in a room. He simply takes the specification book, which includes color samples designating exact shade, and paints the room as it should be without further discussion. This same book of specifications prevents the supply-room man from building up unnecessary stocks of colors, and also eliminates many common errors that might occur in painting practice if such a specification book were not available.

The floors in the mill are finished with a new penetrating wood finish which seals the pores. This is applied with a brush and rubbed in with a coarse cloth. Two coats are applied according to directions. This method not only preserves and protects the floors, but largely eliminates the necessity for scrubbing with strong scrubbing soap and water, thereby greatly prolonging the life of the floors and making them much easier to clean and maintain.

This new type of floor finish permits easy touching up of the worn areas without the necessity of completely refinishing the whole floor. Life of the finish naturally depends on the traffic to which it is subjected.

Fulling-Mill Temperatures

Proper control prevents unevenness, excessive flocking, and other defects

BY HARRY M. RHODES

FULLING is one of the most important processes involved in finishing many types of woolen and worsted fabrics. Frequently, however, this process is not given the careful consideration it deserves. In many finishing plants a fabric requiring fulling is run down to a certain width or for a specified length of time, and the operation is considered complete. When variations in finish occur in a group of pieces of the same stock and construction, the finisher has difficulty in giving a satisfactory reason for the lack of uniformity. The chances are that the trouble is due to improper control of temperatures in the fulling mill.

Basically, the function of a fulling mill is to felt the wool and fill in the weave so as to impart a mellow handle to the finished fabric. There are various theories as to what actually takes place in felting, but these need not be considered here. In addition, shrinkage takes place, which contributes to the firmness of the fabric and has an effect on the finished weight.

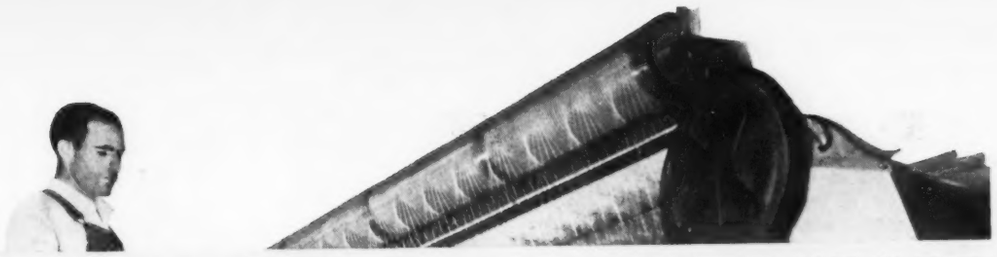
There are two important mechanical components of a fulling mill; namely, the rolls and the shrinking or crimping box. These are adjustable to change the mechanical conditions under which fulling is carried out. Thus, top-roll pressure has an important effect on fulling time, and the modern fulling mill is designed to permit easy adjustment of this pressure to meet the requirements of various types of fabrics. An equally important condition is that of temperature. Yet, in most plants temperature receives little consideration. Failure to control the temperature in fulling gives rise to such faults as unevenness, excessive flocking, mushiness, and boardiness.

Heat is generated in a fulling mill through friction as the moving pieces pass through the crimping boxes. The higher the speed of the machine, the greater is the friction and, consequently, the greater the amount of heat generated. The heavier and bulkier the fabric, the greater is the surface area. Therefore, heavy, bulky fabrics will generate heat much more rapidly than will lighter and flimsier goods. Despite this fact, many plants operate their fulling machines at the same speed on fabrics which vary from 6 to 40 oz. per yd. in weight.

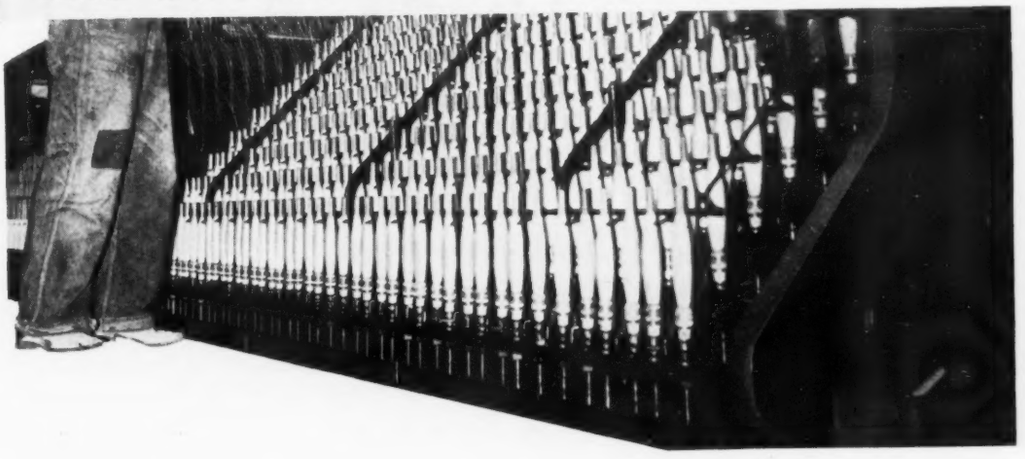
The warmer wool fibers become, up to a certain point, the more responsive they are to the action of the rollers. The temperature affects the speed at which felting, development of cover, and shrinkage occur. There are various factors which influence the temperature in the fulling mill. Chief among these are operating speed, room temperature, fabric weight, fiber content of fabric, shrinkage requirements, and soap consistency. All these factors must be considered if satisfactory results are to be obtained.

EVERY FINISHER KNOWS that it is possible to arrive at the same result in a number of different ways. From his own experience, each finisher has formed an opinion as to the most satisfactory temperature at which to operate a fulling mill. Some finishers are disciples of the slow-fulling theory. Others believe that the quicker the fulling, the better is the result. The hotter the goods during fulling, the quicker the operation is completed. However above a certain temperature there is danger of mill wrinkles and excessive flocking—particularly with fabrics manufactured from low-grade stock. The writer's experience has been that a temperature above 110° F. is dangerous with any type of fabric and that at temperatures in the 50's the operation is practically at a standstill; in general, the most satisfactory temperature for most fabrics is 85° F. There are instances where the finisher might find a somewhat higher or lower temperature to be advantageous. For example, fabrics constructed of short fiber yarns should be kept cooler than those of better grade to prevent excessive flocking and waste and excessive dead loss when finished.

Although finishers to not agree on the most satisfactory temperature, there is probably no finisher who will not admit that proper control of temperature would be beneficial. Control of temperature can be obtained by use of variable-speed drives on the fulling mills and indicating thermometers to show the temperature inside the machine. Some plants may find it necessary to provide a means for shooting heat into the machine during cold periods. Special care is taken to maintain uniform temperatures in other operations, such as scouring, drying, and pressing, and finishers will save themselves a lot of worry by devoting some attention to fulling temperatures since these have equally as important a bearing on the quality of the fabrics which are fulled.



COTTON INDUSTRY PROGRESS REPORT



These Exciting Years

GOLDTHWAITE DORR, at the annual meeting of the Cotton-Textile Institute last fall, spoke of the "exciting years" through which the cotton textile industry had passed. To him "exciting years" mean thrills and opportunity—all that excitement means to youth.

And it is to these exciting years that we dedicate this special cotton section of TEXTILE WORLD. Not so much the exciting years which have passed, except as they may be guides to what is to come; but rather the exciting years which the industry is now experiencing and will continue to experience so far as we can see ahead. For, as we indicated in the "Next Decade in Textiles" in our Annual Number, there is no prospect of quiet times. There may sometime be achieved a certain degree of stability but it will always be challenged by change—change deriving from man's inventive genius and from his groping toward social progress.

Those who talk of the passing of frontiers engage in idle twaddle. There may be no more land-rushes, or Indians, or buffaloes, but there are countless frontiers on which new types of progress are to be achieved.

There is for this industry the job of making textile materials cheaper, more durable, more versatile—in order that they may withstand the onslaught of non-textile materials. There is the job of making the textile industry a more profitable place in which its million and more employees may work. There is the job of achieving prosperity for stock-holders, executives, and key personnel. There is the job of informing the rest of the world regarding textile progress.

The cotton division of this industry has come a long way in the last ten years. It voluntarily reduced hours and eliminated night employment of women and minors. It set the pace for all industry by its NRA Code No. 1. It shared with the consumer—often, unfortunately, in too high a degree—the results of the technological advances.

During the years to come, it must consolidate these gains and translate them in terms of assured prosperity for all engaged in cotton manufacture.

As a guide post, we present in the following pages TEXTILE WORLD's Cotton Industry Progress Report, dealing with the major problems facing the industry just now, and with the major trends toward their solution.

We congratulate manufacturers, association executives, technicians, sales executives, operating executives, and employed personnel on the advance which this report reflects. We share with them their confidence in the results of the exciting years ahead.

This industry supplies one of the three elemental needs of mankind. That need will continue to be supplied. The owners and managers and technicians and operatives of existing textile mills can continue to be the suppliers—if they will keep their minds open to the implications of this and similar progress reports. If such reports seem to be irritants, they are necessary irritants. And they are exciting—just as are the years in which we are living.

Douglas G. Woolf

THE FOLLOWING PAGES ARE DEVOTED TO COTTON FEATURES

COTTON Textiles Today and Tomorrow

By JOHN A. McPHERSON
Chief Engineer, J. E. Sirrine & Co.

In the same mood that impelled TEXTILE WORLD to look into the future with its "Next Decade in Textiles" section of its Annual Number, Mr. McPherson lifts the curtain and examines the cotton-textile industry of tomorrow, with particular reference to what an ultra-modern cotton mill will look like. The author emphasizes that the views expressed in this article are purely personal on his part, based on nearly 40 years textile experience.

We can imagine some readers disagreeing with Mr. McPherson on details, but we can't see how anyone can take issue with his main thesis: the absolute necessity for modernization.—**Editor.**

THE COTTON BRANCH of the textile industry is especially a problem at this time. It is quite natural that those directly or indirectly engaged or interested in the progress and prosperity of this part of the textile industry should give thought to its present condition, and speculate as to its future.

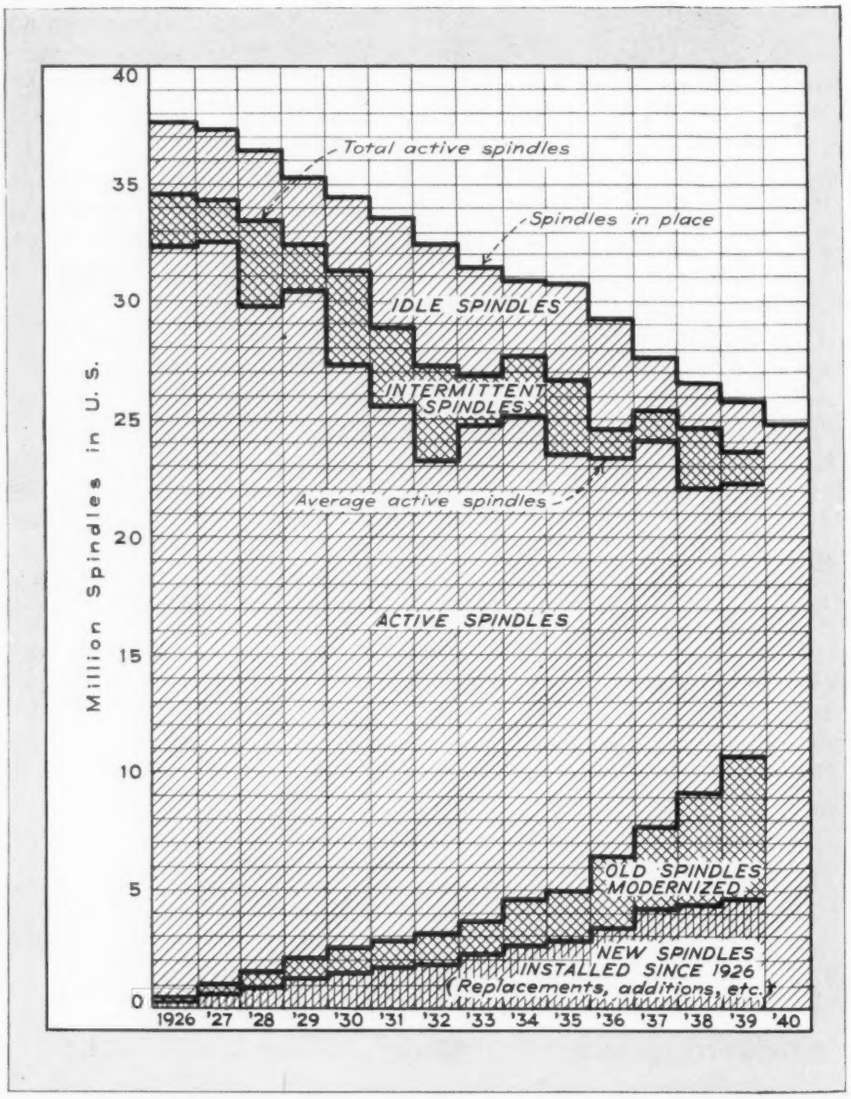
The principal question arising in the minds of many today is: Have the factors that governed and controlled profit and loss in manufacturing cotton goods definitely changed within the last few years? Many new and very radical conditions have been created by legislation and Government decrees, and by competition of other fibers, that have thrust problems on the cotton manufacturer which have not been faced before. The entire textile industry is also concerned with threats of future legislation and special taxes that may affect it—all of which creates a state of uncertainty that is baffling to textile management.

Cotton manufacturers are naturally interested in, and sometimes disturbed about, the effect of synthetic or substitute fibers on mill operations, and they are concerned over the ultimate effect of this competition, which has increased some 350% within the space of the last ten years.

The question that naturally arises is: What can be done by the individual and by the group to meet the new conditions created? Cotton farmers, and buyers and sellers of cotton products, are vitally interested in the preservation and expansion of cotton uses. Many fear that cotton is losing ground and may eventually be supplanted by other materials.

The questions often asked are: Has the peak of cotton textiles been reached? Is the industry definitely started on a decline? Certain trends would indicate that cotton manufacturing has passed its zenith, and is now steadily going down hill. A decline of 10,000,000 spindles in the last decade (Chart I) would look ominous but for the fact

CHART I



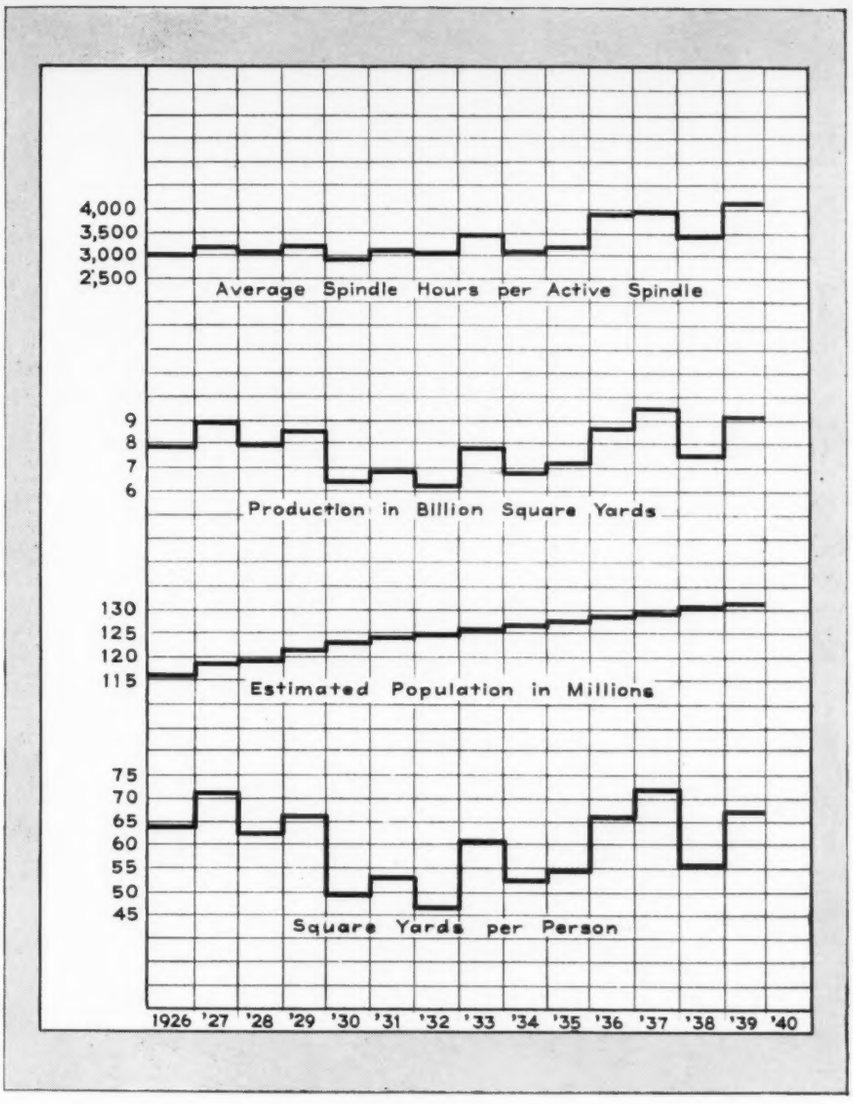


CHART 2

that the total operating hours have not declined but remained fairly constant over the same period.

The records show that in 1928 with 36,405,976 spindles installed, the spindle hours were some 92,725,000,000 and cloth production about 7,850,000,000 sq. yd.; whereas, in 1939 with 25,986,000 spindles installed, the spindle hours were 92,559,000,000, and production 9,145,000,000 sq. yd. (See chart 2.) Everyone familiar with the industry knows that production has been maintained, and even slightly increased, because of double- and triple-shift operation. The decrease in spindles has been offset by increasing the operating hours of the spindles remaining in place and by improvements in methods and equipment.

Textile manufacturing today is not the simple operation that it was in former years. The day has definitely passed when a good merchant, farmer, or even doctor, able to finance a textile plant, can make a brilliant or even a moderate success of his plant; the margin of profit is too small. Trained and experienced management, coupled with the best plant possible, is required today for successful textile operations. The plain and simple fabrics, such as sheetings and print cloths, at one time so profitable, which still remain the backbone of the cotton industry on the basis merely of tonnage, have been augmented by an infinite variety of styles and constructions unheard of by the pioneers in the industry.

MANY OLD PLANTS, seeking more profitable lines, are endeavoring to change to more remunerative products, only to find that their equipment and layouts are not suitable. The improvisation necessary and the handicap of old equipment produce results usually very disappointing. Unsuitable, dull, and worn-out tools of old and obsolete equipment cannot compete, even under the best and smartest management. The same will apply to most industries facing a similar situation. Cotton textiles are, however, exceptional to the extent that a considerable portion of this industry attempts to operate equipment long after it has served its useful life and when new and more efficient machinery and methods are available. Allowances for depreciation and obsolescence are generally too small, resulting in an actual capital loss and not covering the cost of replacements.

This situation has been brought about by the fact that in recent years great and radical improvements have been made by the textile machinery manufacturers. Improved opening, picking and drawing; long-draft roving; long-draft spinning; high-speed spooling, winding, warping and slashing; and high-speed looms are just a few of the major improvements made within the last 10 to 15 years, and mills without some, or all, of these improvements are almost hopelessly handicapped under normal conditions.

A broad survey of the textile industry shows that the United States today contains some 15,000,000 cotton spindles that are in need of modernization in some degree. (See chart 1.) This figure is an approximate estimate of the active spindles, where replacements or improvements are necessary to place them on a reasonably competitive basis with those mills that have installed the latest types of equipment, or that have thoroughly reorganized and improved their plants. Several million spindles exist today in American mills that are either idle or that operate on a part-time basis. This latter group cannot be operated profitably, or, at the best, only under the most favorable market conditions. The majority of spindles in this group are probably not worth salvaging and in time will be definitely eliminated by liquidation or junking.

More and more textile executives are coming to realize that their future will depend upon their own action. Many new and difficult problems have to be faced. These problems can, and will, be solved by the industry—at least by those who have the courage and determination to do something about them.

The main consideration now facing the industry is to get production costs in line with the prices prevailing for the products. This must be done if the textile industry is to survive. It is very likely that the industry will face, from time to time, periods of excess production and low prices, when the industry cannot show a profit, and such a situation can be rectified only by regulating production. This should be a temporary condition; low production costs, however, must be a condition continually maintained in mills that are to show a profit.

This is the problem that each mill must solve, if it expects to exist, and the correct method of obtaining low costs will be the test of a manufacturer's ability. Every factor of efficiency obtainable from equipment must be utilized; every advantage inherent

in arrangement and layout must be obtained. Proper constructions and products must be selected for manufacturing; smart and able merchandising methods must be used. The several factors enumerated above basically hinge on the necessity that a plant be properly laid out and equipped to secure the lowest manufacturing costs.

The ablest executive's efforts are nullified if his plant is inefficient and if his costs are materially higher than his competitors'. The plant is his most important tool, and it must be in position to supply his products at costs in line with his selling prices. It is probable that every executive fully realizes the truth of these statements; yet today a majority of mills in the industry have not met this one essential requirement. The value of modernization has been definitely demonstrated by the mills which have carried out well-planned improvement programs. A very casual survey of the industry will show that the most successful mills have consistently maintained their plants, and have utilized the latest developments of the machinery builders' art.

Probably most textile manufacturers, operating old and out-of-date equipment, are fully aware of their needs and would modernize their plants if they felt financially able to do so. New capital financing has been difficult in the past, especially in textiles, but today, with vast reserves of idle capital seeking profitable outlets, any determined management may find it possible to modernize, based on a proper and reasonable showing of profits that would be derived from such a move.

WHAT HAS BEEN SAID ABOVE applies to existing plants. It has often been asked: What would a new mill, if built today, be like? New cotton mills now are few and far between, but from time to time new mills are going to be built. Based on investigations and studies made by the writer, and viewing the new mills from an engineering standpoint, the ultra-modern mill, if we choose to call it such, will incorporate some or all of the following:

The equipment will be the latest development of the machinery builders' art. It will incorporate equipment to thoroughly open, prepare, and clean the stock. Special and adequate opening-room facilities will be incorporated in a modern mill. The picker room will have the latest type of single-process machines, automatically fed and provided with an adequate dust removal system. Clean, filtered air, at proper humidity, will be supplied by air-conditioning equipment. The card room will follow the conventional line-up through the drawing. Controlled or long-draft roving will be standard for most plants. Long-draft, wide-gage, large-package spinning; high-speed spooling or winding; and high-speed warping with automatic cleaning will be standard spinning room equipment. High-speed slashers with automatic controls, and high-speed looms, will also be standard equipment. The cloth room will include the latest and most modern machines for inspecting and cleaning the cloth at high speeds and the layout will be stream-lined for ease in handling. Mechanical conveying and handling equipment will be utilized in many of the departments to reduce heavy manual operations. Overhead monorail equipment, elevating and gravity devices, will certainly be utilized in the modern mill.

The equipment will most likely be housed in a one-story structure, and designed with walls and ceilings insulated to permit the maintenance of exact humidity and temperatures. Daylight will not be essential; and windows, natural light, and natural ventilation will be replaced by high-efficiency lighting and automatically controlled air-conditioning.

Provision for the elimination of most of the noise, usually considered inseparable from manufacturing, will be made as materials and methods now make this possible. Solid, windowless sidewalls, and some type of glazed interior walls will be adopted for insulation and cleanliness. A sub-floor system of dust removal and cleaning, operating as part of the ventilating system, will be provided. Mechanical aids for cleaning will be essential in the modern mill and the operatives will be relieved of much work of this kind. The modern mill will be a clean structure in every sense of the word.

A new mill, unless integrated with a group generating its own power, would purchase its energy, providing power-factor corrective equipment to eliminate contract penalties due to low power factors and to prevent system voltage drop and kw. losses.

The new mill will be illuminated with a fluorescent type of lighting system. Low current costs, prevention of slow-down and reduced heat output will make this type of lighting essential in the modern mill.

Use of electrically operated doors between the various departments will be essential to speed up traffic and help maintain proper air and humidity conditions in these departments. The operatives in a modern mill will be trained for their work, and will have pride in the craft; they will be a respected group in their communities, and will receive good wages, and be remunerated in proportion to their ability to produce.

Trained and efficient management is essential

The modern mill will require substantially less warehouse space for raw and finished stock. Cotton can be called for from public storage reserves as needed, and large inventories of finished goods will be avoided through production control. This mill will be located near cities and towns where suitable labor is available, and the present practice of providing houses for the help will be largely eliminated.

THE MODERN MILL may include many special facilities in addition to those given, but it is fairly certain that it will

Obsolescent machinery eliminated by junking

incorporate the main features as outlined. The elimination of manual labor to the maximum extent possible will be a fundamental requirement in the modern mill, and the operatives' principal duties will be machine tending, with practically no strenuous work to perform. Present labor assignments and standards will be discarded and scientific job-assignments developed, carrying higher rates than at present, but productive of even lower unit costs than now obtained, thereby making it possible for a wider consumption of the output of the plant.

The modern mill will most likely be a unit in some large and strong manufacturing group. The large capital requirements in a highly competitive industry will make this necessary and consequently the modern mill will become the principal productive unit of the larger group and tend to concentrate the industry into fewer and stronger hands.

The individual consumer of textiles today, except in a few specialties, is not aware of the source or producer of the fabrics or goods purchased, and therefore the incentive to produce and maintain a high standard of quality is absent. Some real reward is possible to shrewd manufacturers, producing goods going directly into the consumers' hands, who will make special efforts to produce high-quality branded or trademarked products, and see that the consumer is acquainted with the fact through popular advertising media.

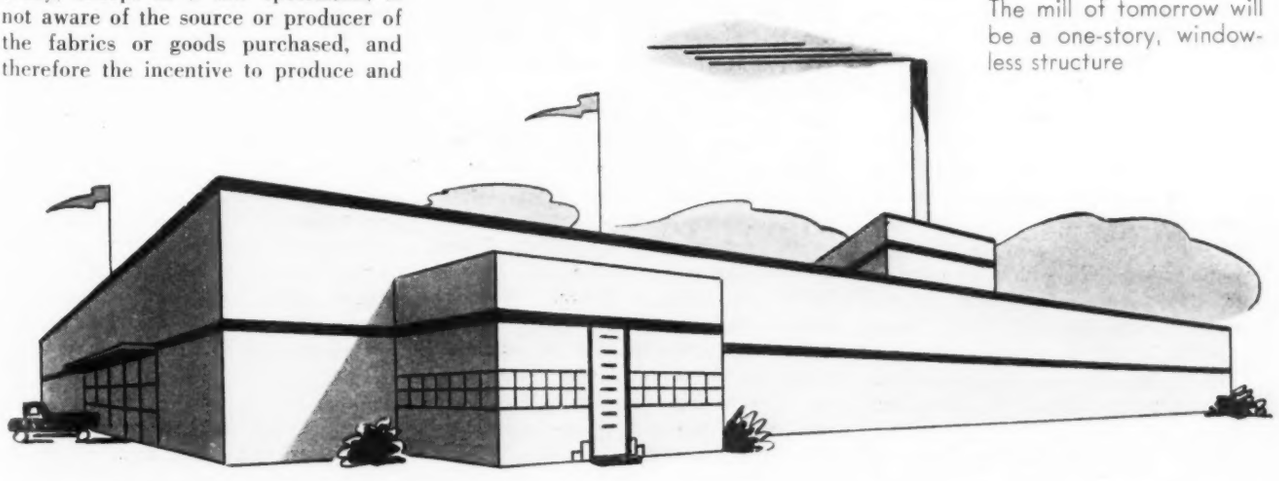
The cotton manufacturer, contemplating improvements to his plant, is faced with the theoretical possibility that his processes of spinning and weaving of cotton will be superseded and replaced by the advent of fabric types and materials that will eventually relegate his production and plant to the category of the horse and buggy. Enough has been seen of the possibilities of chemical application to some phases of the textile industry to make this of real concern to him. The value of goods made from synthetic materials is growing and gradually replacing many products of natural fibers.

The cotton manufacturer should realize that his competitors are not only the other manufacturers of cotton goods, but also the manufacturers of products from cotton substitutes. The cotton manufacturers might all continue to operate with old and obsolete equipment and still face a competitive situation. The cost and quality of cotton products must be consistently favorable and relative in price as compared with other materials. If this parity is not maintained, then the cotton manufacturer may well be concerned as to his future. There will always remain a substantial volume of cotton products of a non-competitive type to be supplied by the cotton-textile mills, and the decline in operating spindles will soon balance production with demand. This will result in a smaller number of spindles competing for the cotton trade, and the plants that are modernly equipped should benefit from this.

Habits and customs change slowly and the present generation, and the generations that will immediately follow, will probably not see a universal shift away from cotton for staple needs. Until millions existing today have their barest clothing, and many of their other elementary, necessities supplied, the producer of cotton fabrics need not worry about his business being destroyed by some substitute material or process.

The cotton textile industry is, and will always be, a major industry; it supplies a primary and fundamental human need. Natural and synthetic substitutes will affect it to some degree, but will never replace it as a primary element of human covering, and for many important mechanical uses. Its greater utilization for present needs will extend by cheapening cost and extending its distribution. Research and study can find for it new and profitable outlets. Cotton will reign as king for many years to come.

The mill of tomorrow will be a one-story, windowless structure



"Fructiferous" COTTON Convention

McLAURINE, LIKE THE GREEKS, had a word for it. He sprang it during his report as secretary-treasurer at the opening session of the convention of the American Cotton Manufacturers Association at White Sulphur Springs, W. Va., April 26-27.

Those of us less erudite than Mac had to look it up in the dictionary to make sure he hadn't coined it. Anyway it's there—"fructiferous" is an adjective meaning "fruit-bearing." And it aptly describes both the progress of the association during the last year, and the convention itself.

The disturbing fact that most of the association's activities, and much of the comment at the convention, were of the defensive rather than the offensive type, is no reflection on the A. C. M. A. or on the speakers. It is a sad criterion of the state of the nation.

It means just this: that the primary job of an organization of this type has perforce degenerated into a negative one: the protection of its members against unsound administration of Federal labor statutes, both good and bad; and against the passage of threatened discriminatory legislation such as Wallace's certificate plan, alias processing tax, for example.

Despite this ominous keynote at White Sulphur, there was reflected there a realization of much bigger, and more positive, jobs to be done. This realization found expression in the address of Robert M. Hanes who painted a thrilling picture of the long-range programs essential in associational work. It was reflected again in the presidential address of Kemp P. Lewis, who urged that the industry tell its story to the public and cited as an example the book "Faces We See" by Mildred G. Barnwell of the Southern Combed Yarn Spinners Association. It was reflected again in Dr. Claudius T. Murchison's address in which he urged a vigorous cooperative program with the purpose of increasing consumption of cotton by 25%.

But all was not serious business at White Sulphur. There were beer and skittles too—and of course sulphur water, for which we hold no brief. It was in fact the most enjoyable convention, from the social standpoint, that the A. C. M. A. has had in years. One advantage was that the association had its members and guests where it wanted them. There were no outside attractions, such as those at New Orleans and Washington for example. There was the town of White Sulphur Springs of course—but we tried that once and realized why ours was the only A. C. M. A. button on the the main street. Furthermore Greenbrier Inn itself has everything any ordinary person wants —and even some things, in its shops, that the ordinary person doesn't want.

Even Nature cooperated. On Friday morning—when the first and most important session was scheduled—the weather was slightly on the lousy side, and so would-be golfers got less exercise but undoubtedly more information.

Altogether, it was a good party, and the newly-elected officers—Fred W. Symmes, president, William N. Banks, first vice-president, and Charles A. Cannon, second vice-president, plus William M. McLaurine, secretary-treasurer, who just squeezed through to re-election by a narrow margin(!)—have a job to do in matching the locale of the 1940 convention in 1941. They also have a job to do in the development of some of the long-range activities previously mentioned. From what we know about the new officers and members of the Board of Government, we have a hunch they will accept this challenge.

So much for the high-lights. Now for the details.

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Fred W. Symmes, the new president of the American Cotton Manufacturers Association, is founder and president of Nuckasee Mfg. Co., Greenville, S. C. where he makes his home. In addition, he is president of Piedmont Plush Mills, vice-president of Camperdown Co., vice-president and treasurer of F. W. Poe Mfg. Co., all of Greenville, and president of Union Buffalo Mills Co., Union, S. C. In addition to his textile interests, Mr. Symmes is a director of the Southern Bell Telephone & Telegraph Co., a director of Southeastern Life Insurance Co., Greenville, a director in several South Carolina banks, and head of the Buffalo, Union-Carolina Railway, and the Union Mfg. & Power Co., both of Union. Although personally he is a rather quiet and retiring man, Mr. Symmes is extremely active in all kinds of civic enterprises. He is especially interested in the affairs of Furman University where he received his higher education.

ROBERT M. HANES, president of the American Bankers Association and head of Wachovia National Bank & Trust Co., Winston Salem, N. C., speaking on "The Objectives of Organized Business," said that "the greatest need of organized business today is a long-range point of view. The objectives of organized business, as expressed through trade associations, are to bring about a better understanding of the business process, both on the part of industry and on the part of the public; to develop improved techniques; to establish sound policies and practices to the end that industry can better serve society and itself."

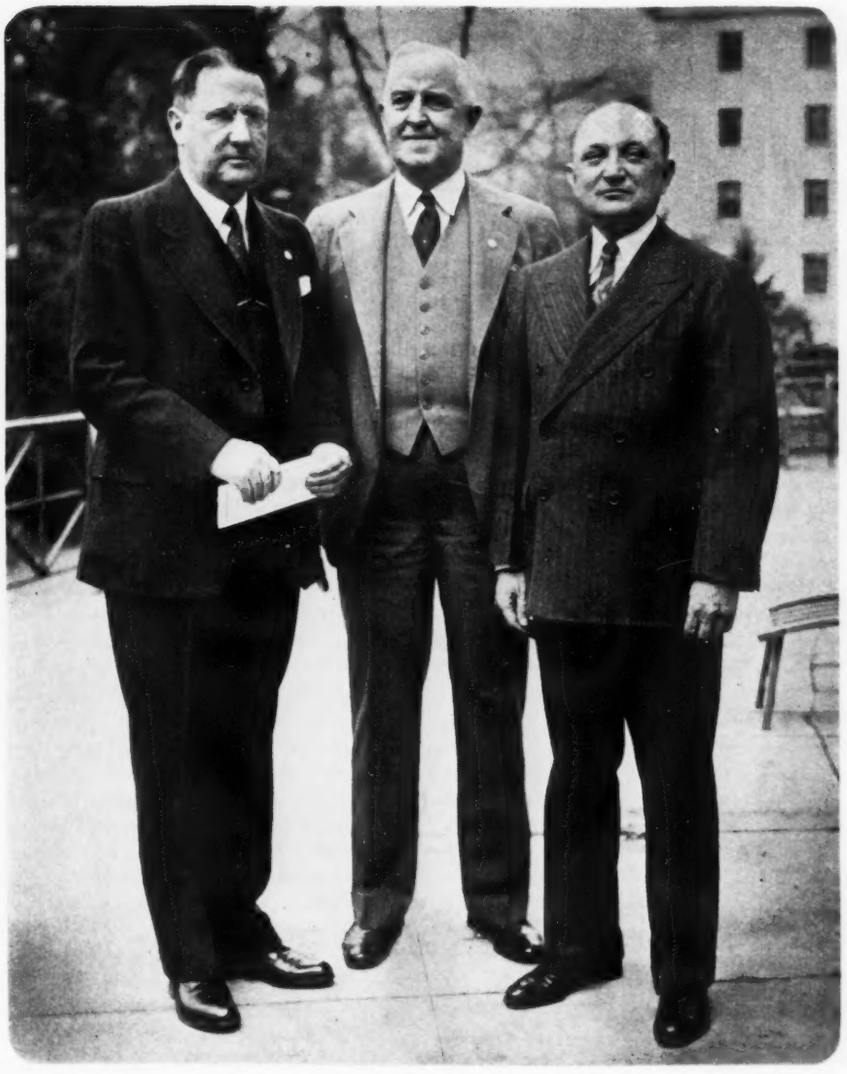
Stressing the need for research, Mr. Hanes declared that in his opinion industry, and especially the textile industry, must become more research-minded or perish. Research, he implied, only begins with the formal technical laboratory dealing in material matters. The program of the American Bankers Association was cited as a constructive example of what industry can do if it puts its wheel to the shoulder.

In addition to the regular activities of the American Bankers Association's research council, Mr. Hanes said that the organization has undertaken to enlarge its program of educational research to include establishment of five new departments: (1) a department of economics to provide banks with fundamental economics information, (2) a department to help country banks develop programs for farm lendings that will enable them to meet competition of government agencies, (3) enlargement of homes and other real estate financing, (4) a department of customer relations for furthering good will,

and (5) a consumer credit department to promote the sound growth of personal loans.

One of the regular activities of the association is distribution of a steady stream of helpful printed materials to member banks. The association also maintains a bank-management commission whose "sole function is an unremitting study of banking management; trying to strengthen weak spots, keep banks informed of changing practices, test new ideas and assist banks in establishing new services on a workable, serviceable and profitable basis."

Mr. Hanes closed his remarks by urging the textile men to analyze the work of their own trade associations and endeavor to plan a long-range program which will serve the industry far beyond its immediate needs.



Three of ACMA'S officers, left to right: Fred W. Symmes, new president, Greenville, S. C.; W. M. McLaurine, reelected secretary and treasurer, Charlotte, N. C.; W. N. Banks, first vice-president, Grantville, Ga. Charles A. Cannon, second vice-president, was not available for the above photograph

REVIEWING THE YEAR'S WORK of the American Cotton Manufacturers Association, Kemp P. Lewis, president of the association and head of Erwin Cotton Mills Co., Durham, N. C., described in detail the work of the association and especially stressed the need for further research in the textile industry. "Our industry is considerably behind many others in the realm of research," he said, pointing out the huge research programs of companies such as du Pont, General Motors, General Electric, etc. He implied that the textile industry would do well to follow the examples of some of these outstanding firms.

President Lewis specifically praised special activities of several textile trade associations including the Cotton-Textile Institute, the Print Cloth Group, and the Southern Combed Yarn Spinners Association.

Mr. Lewis is particularly concerned with furthering the public relations of the industry and spoke of the "vicious attacks on the southern cotton-textile industry which we have practically taken lying down." He strongly advocated that A. C. M. A. "put forth a real effort in the matter of public relations to get our story told." As previously stated, Mrs. Barnwell's book, "Faces We See," was cited here as an outstanding example of good public relations.

Mr. Lewis reported on the association's fight and defense against unfavorable legislation, and warned in closing that "the industry must endeavor to look ahead with concern in order to prepare for the shock which will be the inevitable aftermath of the war."

W. M. McLaurine, secretary of the A. C. M. A., in his annual report, amplified the remarks of President Lewis. He spoke especially of the cooperation between the affiliated associations in the series of conferences called last year to fight the proposed certificate plan. "I believe that such conferences between associations should be continued regularly in the future," he said, "because they permit the various associations to coordinate their efforts and activities to the advantage of all parties concerned."

Secretary McLaurine mentioned his particular interest in industrial relations which he said "cannot be solved by any mechanical means or formula. Cooperative understanding and goodwill and a square deal are all that are necessary." In the field of public relations, he praised the State associations of South Carolina and Georgia.

The importance of long-range planning was again emphasized by Dr. Claudius T. Murchison, president of the Cotton-Textile Institute, who asserted that "it is not unreasonable to expect that we can increase cotton consumption in this country by 25% within the next five years." Not only is this increased consumption possible but also it is urgent in view of the poor export prospects for American cotton. If something is not done, he warned, there will be no alternative but to succumb to pressure for payments to farmers by the Government, which would probably result in some form of processing tax.

A truly optimistic note was sounded by Dr. Murchison who pointed out that the forces of constructive conservatism are sweeping forward in Washington, and "we are again feeling firm ground under our feet upon which can be based social and business policies which are sound and equitable, and which possess permanency." He reviewed the status of a number of important bills pending before Congress and said that a spirit of tolerance is coming to the front.

(Continued on page 124)

Sale of COTTON Mill Houses to Employees

By HARRIET L. HERRING
Institute for Research in Social Science
University of North Carolina

The timeliness of the subject of this article is apparent. The mill-village problem has reached a brand new phase in the South, due to the tendency toward sale of houses ot employees. . . . What is the future of the mill village? We are fortunate in securing from Miss Herring a series of two articles on the problem based on a personal field study which she has just concluded. This article, the first, explains the processes of the sales which have been made to date. In her second article, to appear in an early issue, Miss Herring will analyze the implications and problems arising from these sales. . . . She investigates and writes as a student, a researcher—not as a protagonist for any point of view.—*Editor.*

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THIRTY-FIVE COTTON MILLS in North Carolina, South Carolina and Georgia have sold a total of around 3,700 village houses to employees. Does this constitute a trend? It may not. After all there are over 600 cotton mills in the three States. Only one or two of the larger mills have sold, and the managements of several large mills or groups have said they do not intend to sell. The 35 units represent only 16 managements, including one which has sold the houses of 14 related units, and several operating two or three units. Most of the single mills have at least a technical connection in that they are represented by the same selling agency. The impression has got abroad that the sale is a policy of this agency, but the writer was assured that this is not the case, and several of its mills are among those which do not expect to sell.

And then again, it may constitute a trend. Cotton mills are famous, both historically and currently, for playing the game of follow-the-leader. Especially is this true in matters relating to village policy: witness changes in rental rates, the rise and spread of welfare work in general and in special forms, the growth of variety in houses—to mention only a few. Already those which have sold are receiving inquiries as to their experience by letter, by questionnaire, by personal visits from other mills. Already rumors of more sales are circulating. Certainly the pace is quickening. Only three started as early as 1936, three more in 1937, and practically all the others have sold since the summer of 1939.

The stage is set for such a development. The village, always something of a financial liability, has gradually become more of one. High building costs in war and post-war years, the rising standard of living among workers, pride among owners in having better villages, all these made more expensive housing necessary. The NRA and the Wage-Hour Law reduced the justification for lower-than-cost housing as a part of wages. Some of the Wage-Hour-Division regulations make higher rents to cover village deficits either difficult or, in the case of old villages, probably quite impracticable.

The mill village has long been an object of criticism for its isolation and controls, with the mills eternally on the defensive. They cited their welfare work in extenuation, or the necessity for housing in order to have workers. But the critics criticized the welfare work and the mills found they did not have to house all employees; many put on a second and even a third shift without adding a house to the village. In less Federally-regulated days a company-owned village was a handy device for keeping out agitators; now in case of labor difficulties the very ownership of its houses makes the hapless mill a suspect before the National Labor Relations Board. Thus the village has become economically untenable, socially and psychologically indefensible, and at times a downright tactical liability.

These are the fundamental reasons that have accumulated to make up the present situation. Not every mill man interviewed accepted every point in this summary—though some "by their smiling seemed to say so." In giving their own reasons nearly all emphasized the economic phases in one way or another. Some gave facts and figures of the subsidy necessary, and pointed out the desirability in the present state of the mills in general and their own in particular of stopping this drain. Some said they wished to realize on the investment in order to modernize the mill or add equipment. It is interesting to note that in some cases the move to sell came from a young manager or one new to cotton mill ways; they looked upon these deficits with a more jaundiced eye than managers long accustomed to the expense as a necessary evil. Many advanced as their reason the argument that home ownership makes better citizens and more stable employees.

The student seeking thorough analysis of the situation will be pardoned for considering these as rationalizations. Belief in home ownership as a factor in good citizenship is hardly so recent a discovery, and the labor turnover in southern mills is probably at the lowest point since the rise of the industry.

THE PROCESSES OF THE SALES have a few elements in common: general repair of the houses, the assistance of some outside agency in arriving at the selling price, preference to present occupants, and long periods of payment by weekly installments. Beyond these the variation is great. Some sold lock, stock and barrel, including unused community houses remodeled for multiple family dwellings; some retained houses for foremen or other special purposes. The outside agency was a local or non-local real estate agency, representatives of a building and loan association or a contracting firm. Prices were based on one-half to two-thirds replacement cost, on cost less depreciation, or on sales value. Some differences were made for condition or location of the individual houses. One manager said there had been some "horse trading" with bargaining purchasers. In two cases where well-built and well-equipped houses were sold for a rather low average price, the managers frankly said it was set at what they thought the workers could pay. The range of prices, even within a given village, was of course very wide—

a few as low as $200 or as high as $1,700. The majority seem to have been between $800 and $1,000.

Many of the mills turned the actual sales over to a real estate agency on a commission basis; others handled the whole transaction direct. The mills which sold first, in point of time or in their general vicinity, sold slowly, the process extending over as much as a year after the announcement was made. Later sales in a given locality have been rapid, the people signing up for all the houses in a few days. The option to occupants was taken up in a great majority of cases. Inasmuch as few of the mills were housing all their workers, there were other employees ready to take houses not bought by the occupants. Most mills adopted the policy of selling only to employees though some sold a few houses to local tradesmen, mechanics or for private rental.

Though some mills required no down payment, most required 10% cash, usually paid in a short period of weekly installments with rents continuing. One large mill selling blocks of 50 houses at intervals of a few months requires 10% in cash. This manager feels that, considering the notice the employees have had, a purchaser is not a promising home buyer if he cannot do this. In the case of four mills visited, the purchasers pay to a local building and loan association, and one to a local bank. In most cases, therefore, they pay to the mill direct or by having it taken out of their pay envelope. In some cases where they were allowed the choice of coming in to pay or having it deducted, practically all chose the deduction. This, incidentally, is an interesting commentary on a mill custom which has had much vigorous criticism.

Payments are spread over periods varying from six and a fraction to ten and a fraction years according to some standard schedule such as building and loan or the F.H.A. Under most plans payments include insurance, and about half of them include taxes. Interest rates range from 3 to 6%. Typical schedules are: $3.75 per week per $1,000 over a 7-year period; $3.03 per week per $1,000 over a 10-year period; 1% of the purchase price per month for 139 months. Upon the payment of 10%, sometimes 20%, of the purchase price the original sales contract is replaced by a deed to the property. In most cases the mill holds the mortgage. Payments at a faster rate than the schedule are usually permissible and every sales plan includes a few purchasers who are availing themselves of this opportunity. Where rental rates had been 50c. a room a week, the payments are only slightly above rents; if the charge had been 25c. the payments are, of course, considerably more than former rents. No payment schedule apparently approximates private rents in the vicinity.

Selling the houses does not mean that the mill is immediately through with the village. Most mills that are in city limits have turned over street maintenance to the municipality if they had not done so before. Of those outside, some managers said the county would maintain the streets; others whose sales are recent were hopeful that it would. A few said, ruefully, or resignedly, or as a matter of course, that they would continue to maintain them. Most mills that have sold thus far are inside city limits or near enough for light and water services and are connecting with those systems, though an occasion one is continuing to sell electricity or water at a lower rate than the purchaser could obtain from the regular system.

SELLING THE VILLAGE does not mean that the mill is through even with the houses themselves. Practically every manager interviewed in this survey said that the purchasers come to him, or some appropriate person at the mill, for aid and advice in making changes, improvements and repairs. It is perfectly natural for a person inexperienced in taking care of a house to go for such aid and advice to the man who has had long experience in it, to the man to whom he has long reported need for repairs on that very house. It is characteristic of the direct, primary relationships which have been the boast of southern mills, and which in many cases are a real and living thing. All have apparently been willing to give time and thought for advice; some aid the new owners by letting them have paint and other supplies at the wholesale rates for which the mill buys them, and some allow the mill service men to do the work, charging the owner for the hours put in.

Of course at this stage of the payments, most mills still have a large equity in the houses and are interested in their upkeep and improvement. This sort of thing may not continue indefinitely, but at least it bids fair to provide a few years of transition that will serve as an educational period.

Few of the mills which have sold their houses have elaborate welfare work. Most have practically none, some have a nurse or single welfare worker, and only one or two have community houses, athletic, educational and social programs. The general intention is to continue whatever work they had been doing; in fact several which had no definite welfare program have retained a cottage for the use of volunteer work, autonomous groups and clubs among employees and families.

The continuance of these village problems may be discouraging to a management contemplating sale of its village in the hope of being rid at once of the whole troublesome business. In some respects, however, this is the most encouraging aspect of the movement. The mill village was not built in a day. The traditions, patterns and habits it has created are of long standing. It would be unfair for the mill to cut loose from all assistance, all support in a field of the worker's life in which it has so long been dominant. The wiser, the more humane the management, the more it will recognize its responsibility to make this an evolutionary, rather than a revolutionary, step.

Mill houses sold to employees: five-room house at right, $1,100; three-room house at left, considerably less

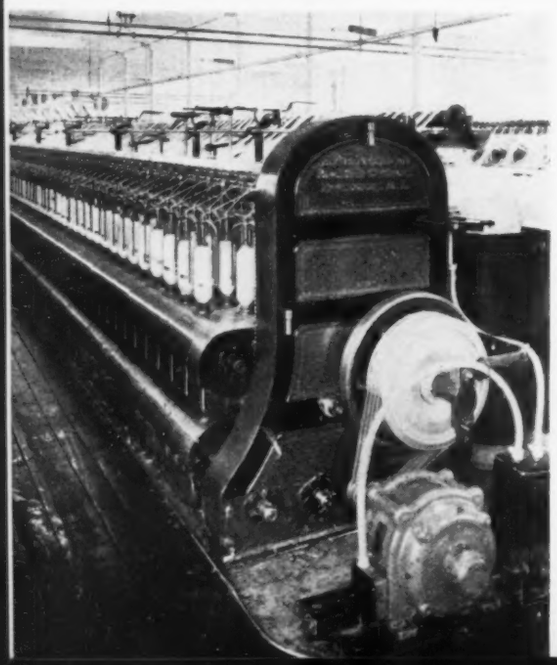
Long-Drafting Practice In COTTON Mills

INTRODUCTION OF LONG-DRAFT spinning and—more recently—long-draft roving has given rise to surprisingly few major problems, but has called for several modifications of practices customary with the older, conventional drafting processes. Little information on what practical mill men actually are doing to obtain most satisfactory results from long-draft equipment has been made public other than at meetings of various associations of overseers and other operating executives. This information is scattered throughout the reports of these meetings and has never before been gathered together in one place. It is believed, therefore, that the following resumé of the methods employed in a number of leading plants in the South, as reported at recent meetings of the Southern Textile Association and the Textile Operating Executives of Georgia, will be of interest and value to all mill executives who have installed or are about to install long-draft roving or spinning.

Successful operation of long-draft roving and spinning equipment calls for more thorough preparation of the cotton than is necessary with conventional drafting. As a result, several mills have found it necessary to install additional blending equipment. At Callaway Mills and at Muscogee Mfg. Co., for example, the problem was solved by installation of Bale-Mixers. In another mill a Gyrator section was added in order to obtain better blending. Still another mill uses a truck in its opener room; the truck is filled with stock from 20 bales, and all this is then dumped into a hopper to insure that the mix is a full blend of all 20 bales.

At the Lanett (Ala.) Division of West Point Mfg. Co. the following layout has proved to be satisfactory: There are six hopper feeders and one waste hopper, the stock from which is fed on a delivery apron to a vertical opener. From this point the conveyor pipes split so that half of the stock goes through a section of condensers and through No. 12 lattice openers, then through a Centrif-Air machine; the rest, through another similar section; then the conveyor pipes converge and take all the stock to the pickers. It will be noted that the stock is treated alike when going through the two sections, but only half the stock must be worked by each section; 24 bales are opened at one time, blending Middling 7/8-in. with 13/16-in. 50-50. Stock from four bales is fed to one hopper, and is, of course, blended much more thoroughly in succeeding treatments.

Typical installations of long-draft roving and spinning equipment shown below and on opposite page



DRAFTS. As yet there appears to be no standard practice in proportioning drafts on long-draft roving frames. With four-roll frames on 1-in. cotton, 64-grain sliver, and 1.45 hank roving, Erwin Cotton Mills Co. No. 3, obtained the best drafts with a back draft of 3.12, a front draft of 3.3, and a total draft of 11.1. With five-roll frames, Travora Mfg. Co. has slightly more draft on the first three rolls in the rear than in front; on 59-grain sliver, this mill is making 1.80, 2.40, and 2.90 hank roving, with total draft ranging from 15 to 21. Some other mills having the same type of equipment have a total draft of 25. At Erwin Cotton Mills Co. No. 4 front draft is approximately double the back draft on Super-Draft roving frames; total draft is about 13. Pepperell Mfg. Co., in its Lindale, Ga., plant, is making 2.67 hank roving from 65-grain sliver with a draft of 20.8.

In long-draft spinning of 1 1/16-in. cotton, double roving, Hermitage Cotton Mills obtains best results with a draft of 17 to 18. Startex Mills has a draft of approximately 19 with a front-roll speed of 120 r.p.m. At the Victor Plant of Victor-Monaghan Co., on double roving, 3.00 hank, 30s warp yarns are spun with a draft of 21 with a front-roll speed of 135 r.p.m.

Likewise, there is no standard practice in respect to the type of drawing rolls employed, although most mills seem to prefer cork or leather-covered rolls. One mill, which uses a five-roll system, has some frames all-cork covered; some with the three back rolls metallic and the remaining two cork. Evenness and quality of sliver from both types are said to be equal in most cases. Another mill reported synthetic rolls satisfactory.

Two mills which have carried out experiments to determine the humidity to maintain around long-draft roving frames reported that they obtain best results at 55% relative humidity, while a third mill found that 50% relative humidity is most satisfactory.

LAPPING UP of cotton on the middle top roll appears to be the trouble most frequently encountered in long-draft spinning. The difficulty generally occurs with short or uneven staple. Variations in humidity are also likely to cause the trouble. It has been stated also that the smaller the top roll and the higher the speed, the greater is the likelihood of lap-ups. At Dixie Cotton Mills use of good, heavy flannels on the clearers and scavenger rolls has been found materially to decrease the number of lap-ups. Pepperell Mfg. Co. has found that danger of lapping-up is reduced by keeping the rolls clean and polished, making certain that no oil gets on the rolls, securing a good buff when using cork, and maintaining proper humidity in the spinning de-

partment. Muscogee Mfg. Co. makes it a practice to scrub the steel rollers at intervals of 8 to 12 months and requires the spinners to keep the steel and top rollers free from lint. Martha Mills reported that it is using the slip-roll type of drafting, and has encountered no trouble from lapping up, although it runs staples varying from $\frac{13}{16}$ to $1\frac{1}{4}$ in. without changing the roll settings.

At Ware Shoals Mfg. Co., the spinner has developed a new type of clearer board which helps materially in preventing lapping-up. The device, which has been patented and is available to other mills, consists of a small wooden block that fits down over the top apron and keeps it clean. The top-clearer waste from the front roll is kept packed in tight against the block. The flannel is glued on to the board.

For oiling spindles on conventional spinning frames, oils of 60 to 75 seconds viscosity are generally employed throughout the industry. These oils are suitable also for regular frames which have been changed over to long-draft, providing the size of the package has not been increased. With high-speed, large-package, long-draft spinning, spindle oils of 85 to 100 second viscosity have been found necessary. General practice is to oil spindles once a week.

CLEANING. Keeping long-draft equipment clean is important to economical and efficient operation. Several mills have developed detailed schedules for the regular carrying out of this work. Erwin Cotton Mills Co., Mill No. 1, for instance, has the first shift on Monday morning oil the shells and hang the weights on its speeders. The second shift drops the weights, takes out the shells, and wipes the arbors on Friday night. Other work is the same for both shifts, as follows: Wipe guides on every other doff. (Doffs occur about every 2 hr.) Pick front rollers once a day. Pick top clearers every other doff. Pick front bottom clearers every other doff. Pick back bottom clearers once a day. Pick spindles once a day. Clean backs twice a week. Clean bottom rolls once a week. Clean top rolls (other than front rolls) once a week. Clean carriage every other doff. Wipe breast beam behind flyers once a day. Pick flyers every time before letting down ends to doff. Pick stands once a week. Oil bolsters once a week with spindle oil. Oil bobbin gears once a week with special oil. Clean head and foot of frame once a day. Keep top of spindles clean; keep bolsters clean. Frame hands are expected to keep the spindle tops and bolsters clean, and to pick them as often as is necessary.

For cleaning its long-draft spinning equipment, this mill has the following schedule: Run out guides and rub off rails three times in each 8 hr. Brush guide wires and pick top slats twice per 8 hr. In the same period, clean back guides and wide stand once, and lap sticks twice. Clean stands, under guides, ring rails, roller bar, roving rods, and heads once a week. Wipe roving every third week. Clean rolls once in 16 hr.

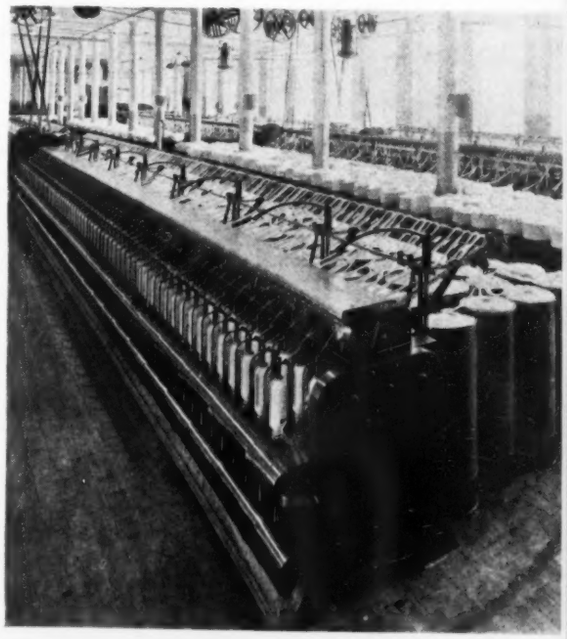
For picking the rolls a number of devices of one kind or another are used to assist or supplement picking with the fingers. One of these is a small twisted-wire brush with stiff hair. Another is a portable roll picker which is clipped on to the spindle rail. A third such device is a hand drill equipped with a wire long enough to reach across the journals of the rolls, under the top rolls.

Muscogee Mfg. Co., when producing 8s to 20s yarn, operates on this cleaning schedule on its spinning frames: Inside base rail once in 80 hr., outside base rail four times in 8 hr., ring rail once in 8 hr., separator one time in 8 hr., thread board once in 8 hr., back three times in 8 hr., roll stands once in 8 hr., roll creel once in 8 hr., front scavenger at the doff, back scavenger once in 80 hr., stationary top clearer once in 2 hr., steel rolls once in 8 hr., roll stand once in 8 hr. Other parts cleaned once in 80 hr. include choke under whorl, choke off idler, roll weights, idler weights, revolving top clearer, and roving guide.

Pepperell Mfg. Co. overhauls its long-draft spinning frames every 4,000 frame-hours. These frames spin an average count of 15s. One overhauling crew does all lining, leveling, roll scouring, and spindle plumbing according to the following schedule: (1) Level and line roll beam and base rail. (2) Scour rolls. First wet roll with non-combustible cleaning fluid, then clean with steel-wire brush, wash again with cleaning fluid, dry thoroughly. When replacing rolls, inspect for damaged flutes, worn necks, and concentricity. Also inspect cap-bar tips. (3) Level ring rail; then plumb spindles, replacing all worn spindles and bolsters; set thread guides, replacing worn ones. (4) Clean out head end, inspect gears, and replace worn ones. (5) Clean lifter-rod bushings and level weight levers. (6) Give frame a thorough cleaning.

Pacolet Mfg. Co.'s New Holland plant also overhauls its frames every 4,000 frame-hours, the work including lining, leveling, and plumbing of spindles. Muscogee Mfg. Co. does the complete job every 4,000 to 6,000 hr., at that time replacing any worn parts. In between times, rolls are scrubbed and aprons replaced, if they need it. Martha Mills lines and levels every 2 yr.; as this mill is constructed with steel beams, it is not necessary to do this work as often as in a mill with wooden beams.

Ends down in spinning are about the same with both conventional draft and long draft; some increase in fly in the spinning room is noted with the latter. Almost without exception, mills which have installed long-draft roving and spinning equipment have found that it permits them to produce yarn with fully as good a breaking strength as with the older methods. Some mills reported a slightly lower breaking strength, some a little higher strength. The same holds true as to evenness of the yarn; i.e., there is little difference in the evenness of yarns produced by conventional-draft and long-draft processes.



Ten slashers in Tallassee Mills have been equipped with additional third cylinder

Increase Slasher Production On COTTON Yarns

INCREASES IN PRODUCTION of cotton slashers ranging from 35 to 95% have been effected recently in several southern mills by addition of a 5-ft. or a 7-ft. third cylinder to machines already in place. Machines which have been revamped in this way are not comparable, of course, with the most modern cotton slashers. However, in plants where it is not feasible to install the latest types of high-speed equipment, the possibility of stepping up drying speeds by use of an additional third cylinder should not be overlooked. As a rule, installation of a 7-ft. cylinder, rather than a 5-ft. cylinder, is favored whenever possible. By making certain other improvements, such as installation of anti-friction bearings, at the same time the third cylinder was added, some of the mills have been able still further to increase the efficiency of their slashers. Following is a description of the way in which two prominent mills have made the change-over.

Faced with the problem of increasing slasher production, B. G. Stumberg, agent, Tallassee (Ala.) Mills, one of the plants of the Mt. Vernon-Woodberry Mills, Inc., Baltimore, Md., decided that the solution was to step up the speeds of his present equipment by installing a third cylinder on each machine. The fact that floor space was at a premium was a decisive factor which led to the adoption of this method. The slashers in service were regular 2-cylinder Saco-Lowell machines. Ten slashers were being operated in a room especially designed for the purpose with very little additional floor space available.

Ten additional 7-ft. diameter cylinders complete with supports, bearings, and connections were ordered from Saco-Lowell Shops, and one slasher at a time was withdrawn from service and equipped with the additional cylinder. The changeover was handled by the mill's own mechanical crew under the direction of the plant engineer, Arch Cottle. A view of the slasher room showing the ten slashers equipped with the additional third cylinder is shown above.

Before the change was made the slashers were delivering from 80 to 90 oz. per min. Yarn sizes vary from 2.85s to 18s. Loom beams are 24 in. in diameter from 32 to 96 in. long, and carry from 6 to 104 ends per in. In spite of these wide variations, the quality of the yarn is carefully maintained. Once a day the yarn is tested for stretch, and records show that the slashers are running with a stretch of less than 2%. Production has been increased to 130 oz. per min. Capacity of the slasher room is now large enough to provide ample time for change-overs, adjustments, and repairs.

Cornstarch is employed for warp sizing, and it has been found possible to use a lighter size mix than formerly and, at the same time, to obtain better

results. At a convenient point in the aisle in front of the slashers is posted a chart showing the various constructions run in the mill and a carefully worked out table indicating the desired speed for each construction. This chart is followed closely by the slasher tender in order to secure uniform, high-quality warps.

Automatic heat control is provided for cooking and size vats. The slashers are driven through a Reeves variable-speed device with manual control. A speed indicator is provided for each machine. Approximately 6% regain is left in the warp.

An interesting and effective safety device used on the slashers is a polished steel rod, ¾ in. in diameter, placed on the warp between the delivery roll and back top delivery press roll. This rod, extending entirely across the warp, rotates freely when the machine is being run and serves as a positive guard against catching of the operator's fingers between the rolls.

ANOTHER EXAMPLE of increased production, together with a considerable saving in floor space, is that effected by a change-over made recently at the Lindale, Ga., plant of Pepperell Mfg. Co. In this mill, the machine work was handled by contract with the West Point (Ga.) Foundry & Machine Co. The original slasher installation consisted of nine slashers in No. 1 Mill and seven in No. 3 Mill. After the change was made, the number of slashers was reduced to five in No. 1 Mill and three in No. 3 Mill. This reduction in the number of slashers released valuable floor space in each room for beam storage. At the same time, adequate production was maintained.

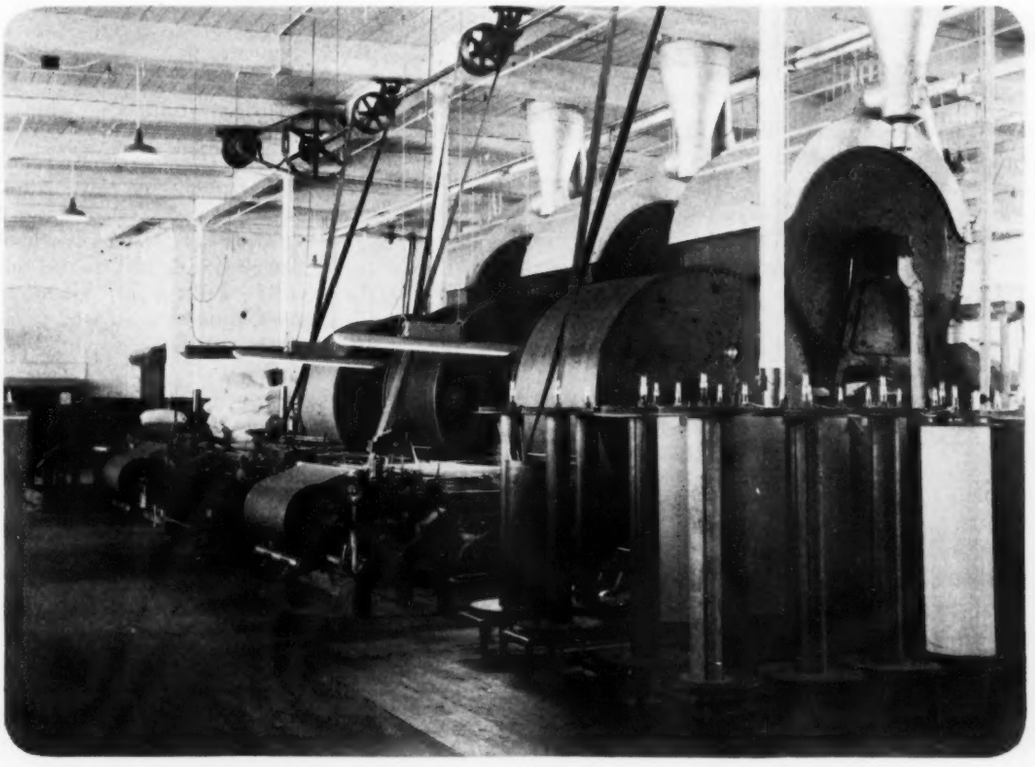
The 7-ft. cylinders from the slashers which were taken out were used to convert the retained slashers into 3-cylinder machines. Anti-friction bearings were installed on all rolls except squeeze rolls. In No. 1 Mill metal hoods had been installed a short time previously by Bowers & Barksdale, Atlanta, Ga. These were adapted to the new arrangement simply by reducing the length of the exhaust pipe and raising the hood. Fans for these machines are in the cowls on the roof.

In No. 3 Mill new metal hoods and exhaust pipes were installed by Sims Sheet Metal Works, Lanett, Ala., and a neat streamlined layout was the result. This exhaust system has special Sturtevant slasher-exhaust units built in the ducts and incorporates a patented feature consisting of an arrangement for exhausting from the side of the hood, with a removable condensation cup to collect and remove any condensate that might collect in the system and be otherwise returned to damage the warp. The direct-connected exhaust fans built in the ducts are Sturtevant Size 25, with capacity of 9,500 cu. ft. per min. at 1,750 r.p.m. They are equipped with Allis-Chalmers 2-hp. motors. The vents from each slasher are individually controlled and exhaust through a revolving cowl on the roof direct to the atmosphere.

Speed of the slashers has been stepped up, and production increased from 90 to 176 oz. per min. No change has been made in the size mix. Yarns vary from 10s to 21s, and goods produced at the plant range from 1.45 to 3.50 yd. per lb. Loom beams are for 36 and 40-in. looms, all beams being 20 in. in diameter. Stretch of yarn is maintained without difficulty at 1.85%.

Automatic temperature control instruments are used on the cooking kettle and the slasher size-box. Standard cone drives are used on all machines. The delivery ends of the slashers are lighted with Hygrade Sylvania Corp. HF-100 fluorescent lamps in suitable reflectors, permitting the tender to inspect the warp under ideal conditions. Beams are handled with a minimum of effort by means of electric hoists furnished by Shaw-Box Crane & Hoist Division of Manning, Maxwell & Moore, Inc.; the hoists operate from an overhead track.

George E. Glenn, Jr., superintendent of the plant, states that with the present arrangement the plant has ample sizing capacity and better beam-storage facilities, and that it has easily maintained high quality of product.



Slasher room in mill No. 3 of Lindale, Ga., plant of Pepperell Mfg. Co. after revamping

Records Decrease Defects In COTTON Fabrics

IF A MILL FOUND that a certain 10% of its looms was responsible for over 25% of all the imperfect cloth woven in the plant, it undoubtedly would take steps to remedy the condition. This is exactly what happened some time ago in one southern mill. As a result, the mill set up a system of weave- and cloth-room records which permits it to determine just which looms are producing imperfect cloth and to correct the trouble promptly. Despite the obvious value of detailed records of fabric defects, a recent study made by a member of TEXTILE WORLD'S editorial staff of weave- and cloth-room practices showed that comparatively few cotton mills keep such records. Further, there seems to be no standard method for classifying defects, although the same general method is followed in most plain-goods mills.

The usual procedure for handling a defect discovered in the cloth room of a plain-goods mill is for the inspector to mark it either with a crayon or a brightly colored piece of string. The defective strip of cloth, which may embrace anything from one mispick to many yards of repeated trouble, is subsequently cut or torn from the roll and the piece sewed together again. In some instances, samples of the various defects are sent to the overseer of weaving, who arbitrarily classifies them as

GRADERS' DAILY REPORT

Date: May 1, 1940

Loom Number	Style Number	Total Yards	Yards Firsts	Yards Secs.	Yards Remns.	Remarks
1170	1001	150	121	22	7	Broken picks, fred marks
397	240	160	100	50	10	Thick places
Total						

Grader: _____

Fig. 1. Form used daily in fine-goods mill to report fabric defects

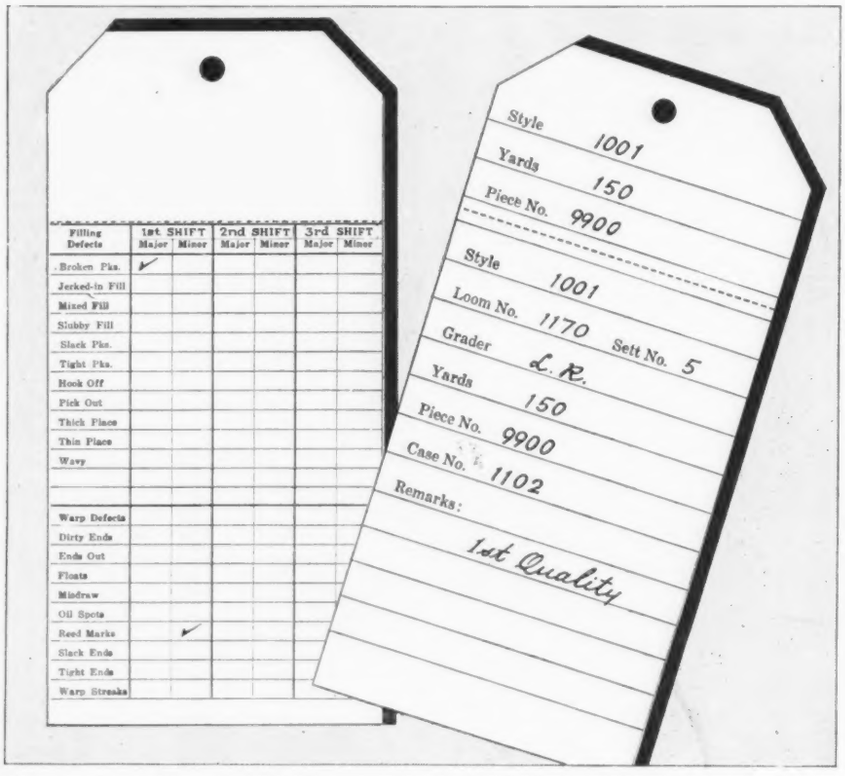


Fig. 2A. Tag containing list of common fabric defects attached to each piece of seconds. Fig. 2B. Other side of tag; bottom of tag is torn off at perforation and filed before cloth is shipped

floats, mis-draws, tight ends, thin places, kinky filling, etc., and passes them out to the weavers. This system obviously is limited to the ability of the overseer properly to diagnose the cause of the defect, and it is of no great value unless some record is kept which will enable the defect to be traced back to the actual loom which made the cloth.

Mills making fine cottons and rayons usually keep somewhat more detailed records of defects. In the cloth room of one fine-goods mill studied the grader makes a daily report containing loom number, style number, total yards, yards of firsts, yards of seconds, and remnants (Fig. 1). There also is space for insertion of cause of the defect. This report is handed in to the overseer each day and filed for reference. No further use is made of the information under normal conditions, except for production purposes.

A second type of record kept, by several mills, deals with higher grades of cloth. In addition to the grader's daily report, there is a tag (Fig. 2A), which is attached to each cut of cloth classified as a second. On one side of the tag is a list of common defects for both warp and filling, which are checked by the inspector as either minor or major. There is a column for each shift so

that the weaver responsible for the defect can be easily identified. On the back of the card (Fig. 2B) is recorded the same general information, with some elaboration, that goes into the grader's daily report. The bottom of this tag, containing all pertinent information, is torn off and filed for reference when the piece is shipped, leaving only the top of the tag containing style number, yards in piece, and piece number attached to the cloth.

THE MOST ELABORATE SYSTEM which has come to our attention is one described at a recent meeting of the Southern Textile Association, by C. W. Howell, assistant superintendent, Mill No. 5, Erwin Cotton Mills Co. Speaking of this system installed in his mill, Mr. Howell said in part:

"When a cloth-room inspector finds an imperfection in cloth that gives signs of not having been previously corrected he makes a report to the weave-room. The notice includes the number of the loom and a description of the imperfections, and has several blank spaces for unlisted faults. Data from this report are transferred to a weekly record sheet which gives the number and location of each loom in the plant. This also has space for the cloth construction, as well as for each day of the week. There is a demarcation line for loom widths and a line for the weaver and loomfixer. These findings are compiled quarterly and the results made known to the loomfixers. This means that a loom which continues to produce imperfect cloth can be detected and the necessary corrections made.

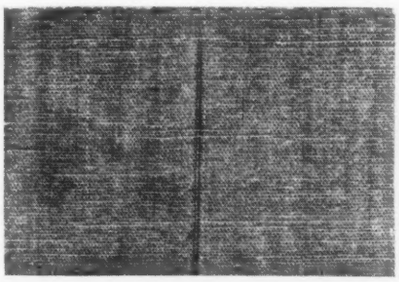
"When there is trouble, the loom number, the cause, and the number of yards of imperfect cloth are listed on a sheet of paper, where both the weaver and loomfixer may observe them. From this record we obtain the percentage of imperfections for each weaver and each loomfixer. The percentages of each and the numerical ratings are published each week.

"Another record we have is for pick-outs or smashes. It provides space for the causes which are studied each week. For comparative purposes, we chart each week the percentage of imperfect cloth produced."

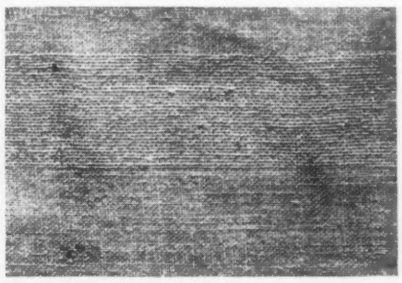
Advantages of this system cited by Mr. Howell are: First, it gives a clear and accurate record of the imperfections for any individual loom; at a glance, there is a comparison between loom sections, weavers' sections, widths of construction, etc. Second, it provides loom production in cuts of cloth, which may be tabulated. Third, there is a perpetual loom list for construction changes. Fourth, it includes an individual loom record for supply and replacement cost.

One thing which is necessary in setting up any system relating to fabric defects is to establish standard nomenclature for the various defects. This will prevent misunderstandings such as occur when somebody refers to "broken picks" as "mispicks," "broken warp ends" as "warp streaks," etc. A valuable aid in discovering the cause of fabric defects and the steps to be taken to prevent them is a chart illustrating and defining all common defects and listing the various possible causes and the remedy for each. Copies of the chart should be posted in the weave room and cloth room and made available to inspectors, weavers, loomfixers, and overseers and other operating executives. Actual fabric samples or good, clear photographs can be used, as preferred, in compiling the charts.

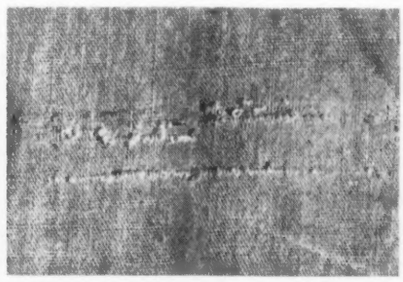
A few common defects, together with suggested standard definitions for each, are illustrated below.



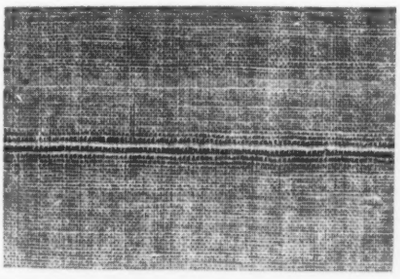
Cracked or open dent—*Appearance:* Open streak running warpwise; closely resembles broken end, but inspection shows no end out. *Causes:* Reed-dent bent either by rough handling, by weaver in drawing in end, or by a shuttle striking the reed at an angle. *Remedy:* Repair reed, line up shuttle.



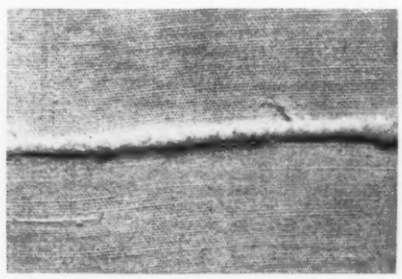
Mixed filling — *Appearance:* Fillingwise band in cloth, with different appearance and feel. *Causes:* Yarn of different count or twist woven in, due to carelessness of spinner, weaver, or battery filler in picking up wrong package. *Remedy:* Care all along line to keep dissimilar yarns segregated.



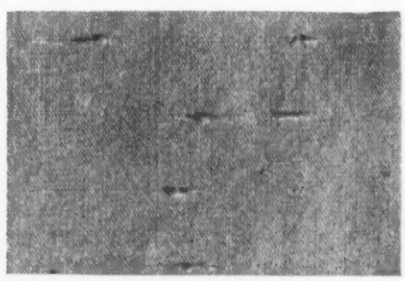
Sloughed-off filling — *Appearance:* Thick, lumpy places somewhat similar to those resulting from ropy filling. *Causes:* Improperly built bobbin, too much power on loom, allowing filling to dry out over week-ends. *Remedy:* Correct bobbin taper; keep filling conditioned; reduce power on loom if necessary.



Faulty change—*Appearance:* Interruption of weave, usually containing rough or stretched place running fillingwise. *Causes:* Incorrect setting of change motion on battery, weak operation of picking motion from side of loom opposite battery. *Remedy:* Readjust change motion or correct setting of pick motion as the circumstances may require.



Ropy filling—*Appearance:* Heavy pick, though usually somewhat less pronounced than in sample illustrated. *Causes:* Improper taper of filling bobbin, rough handling by battery hand or doffer, reckless use of filling chute from spinning room to weave room, too much power on loom. *Remedy:* Correct taper, eliminate rough handling, reduce power if necessary.



Cockled filling—*Appearance:* Lumpy spots running fillingwise. *Causes:* Spinning-room draft rolls set too closely, roll covering too slack, improper atmospheric conditions, etc.; sometimes results from poor mixing of short- and long-staple cotton. *Remedy:* Properly adjust spinning frame, humidifier, or other source of trouble; exercise care in mixing stocks.

National COTTON Week Runs Nine Days This Year

By CHARLES K. EVERETT
New Uses Section
Cotton-Textile Institute

STORES EVERYWHERE, in number far beyond 100,000, will join in support of this year's observance of National Cotton Week, May 17 to 25. Assurance on that point comes from the Cotton-Textile Institute, sponsor of the event, following a late check-up on preparations of retailers, big and little, chains and independents.

This year marks the tenth annual observance of Cotton Week. Significant of its present secure place on the trade calendar is the fact that, at the specific request of retailers themselves, the promotion has been extended this year, for the first time, to nine days to include two week-ends of busy selling.

A number of factors point to unusual success for this now established, concentrated promotion of cottons. Aside from the record-breaking number of retail participants, there is the cumulative effect of satisfactory results experienced by stores generally in other years. Moreover, the heightened sales appeal of cottons for apparel and household purposes has sharply stimulated the interest of merchants in Cotton Week.

Most reassuring is the thorough job of coordination which has been done this year by the Cotton Consumption Council. This group, organized at the behest of the Cotton-Textile Institute at Atlanta in the early spring of 1938, brings together within a single streamlined body all divisions of the cotton industry for planning cooperative promotions. It represents cotton producers, textile manufacturers, and the principal organized wholesale and retail groups, in addition to the Association of Southern Commissioners of Agriculture. Beginning with the activities of producers and raw cotton interests, local committees have been at work in more than 400 of the cotton-growing counties. As a result of the activities of these groups, merchants in the South have been given unusual encouragement in developing plans for tie-ups with the event.

The Southern Commissioners of Agriculture—through their association president, Harry D. Wilson of Louisiana, who is also chairman of the Cotton Consumption Council—have been active in enlisting the influence of public officials generally, with the result that Cotton Week will benefit this year from proclamations of the Governors and other public officials in many States. The Wholesale Dry Goods Institute and the National Retail Dry Goods Association report unprecedented interest on the part of their respective memberships. Mail order houses and chains in the dry goods, notion, shoe and drug fields are ready to "go to town" with Cotton Week.

Newspaper advertising and window displays will be utilized in a manner and to an extent not hitherto seen. Many stores making use of radio for advertising will have special programs for the presentation of new Cotton Week merchandise.

Nation-wide publicity is assured by radio salutes to Cotton Week on a number of popular programs with coast-to-coast hook-ups, and by recognition from leading newspaper syndicates and magazines of both class and mass circulation. Dining car menus in use on the principal railroad systems of the country during Cotton Week will carry appropriate references. Nation-wide advertising and special Cotton Week window displays will be provided by a number of allied interests, including soap manufacturers, laundries, suppliers of cotton uniforms, towels, etc., washing machine manufacturers, and pattern companies.

Striking and reliable indices of the widened interest of stores in Cotton Week are given in figures supplied by the Cotton-Textile Institute. More than 500,000 official display posters have been sent out to retailers as compared with a scant 40,000 required for the first Cotton Week back in 1931. Requests for information and promotional material have been received by the Cotton-Textile Institute in unprecedented number, reaching more than 200 in a single day recently. More than 100,000 pieces of promotional material, aside from the posters, have been prepared and sent to stores.

From all indications, Cotton Week will this year, as never before, demonstrate its particular value and usefulness in revitalizing the approach to selling cotton merchandise generally. There is heartening evidence that the industry's big merchandising effort is a definite influence in getting both merchants and consumers alike to recognize that the qualities of cotton have too long been obscured by an undue emphasis on price appeal and economy.

Cotton Consumption Council gives Cotton Week a boost. Center first row is Harry D. Wilson, Louisiana Commissioner of Agriculture, chairman of the Council. Beside him (to the left) is Dr. C. T. Murchison, president of Cotton-Textile Institute

TEXTILE EQUIPMENT NEWS

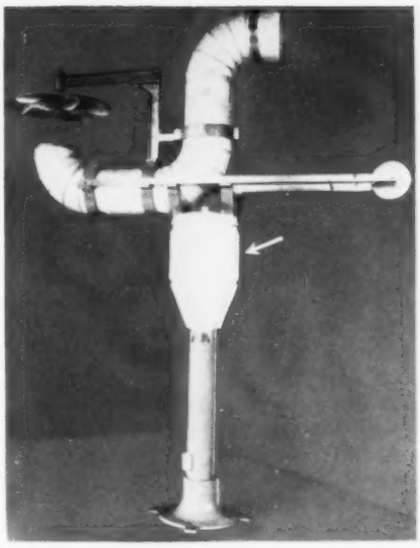
Photoelectric Control; and Motor-Driven Blender

Installation has been begun by Curtis & Marble Machine Co., Worcester, Mass., of photoelectrically controlled cloth inspection machines. Actual inspection of the cloth is carried out on these machines just the same as on previous models, but the operator stops and starts the machine merely by interrupting with knee or dress a conveniently located light beam. This, it is pointed out, is a much easier and faster method than that by which earlier models were operated. Also, it leaves both of the operator's hands free.

Inspecting machines supplied with this method of control also have a hand lever which can be operated, when desired, in place of the photoelectric control. They are likewise equipped with a reversing mechanism which makes it possible to bring the cloth back toward the operator. The control can readily be adjusted to fit the operator.

A motor drive has been added to the Truslow blending attachment for picker rooms manufactured by this company. On blenders equipped with this drive the shafting, which on older models had to extend from the blending attachment in the center of the gauze-room partition, is done away with. Likewise, the tight and loose pulleys on the end of this shaft are eliminated.

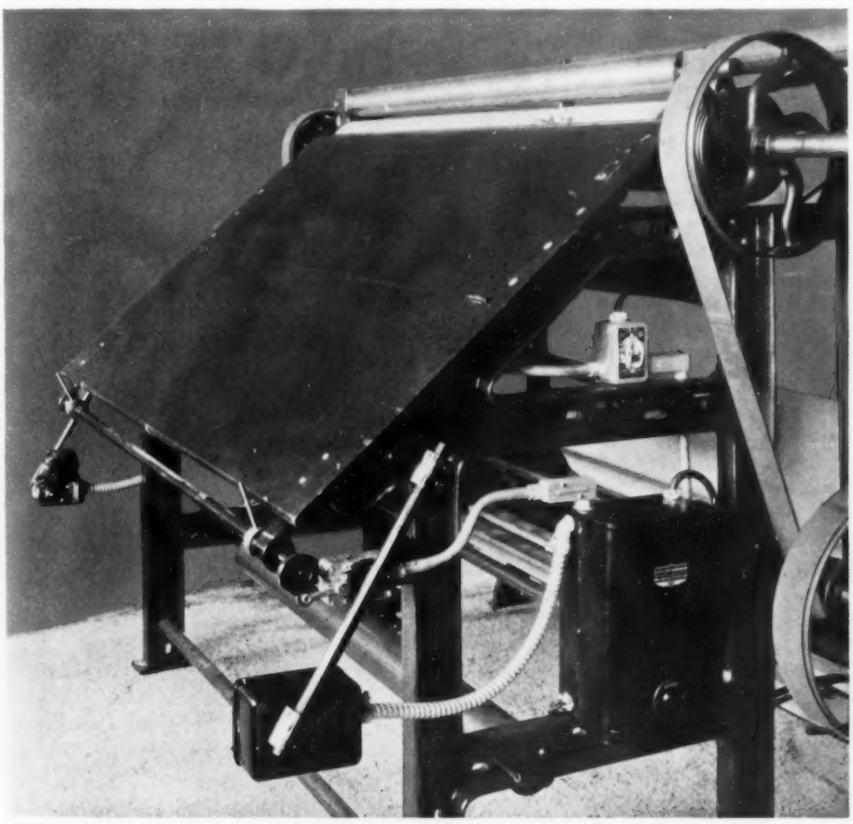
With the new motor-drive arrangement, a vertical gearmotor is mounted at the top of the column, and inside the inclosing covers to which an arrow points in the accompanying illustration. The wires from this gearmotor run down through the column, either to a junction box at its base, or through the floor. The new drive is said to be more compact and convenient in every way.



Motor-driven blender (Curtis & Marble)

Infra-Red Drying Lamps

Expected to prove of considerable interest to textile mills are four new infra-red drying lamps in 250- to 1000-watt sizes, designed for industrial or commercial drying and heating jobs, which have been announced by the Westinghouse Lamp Division, Bloomfield, N. J. The new line includes 250-watt clear glass and self-contained reflector lamps; and 500- and 1000-watt clear glass types for heavy-duty work. All are designed for use on 105- to 120-volt circuits. With the exception of the reflector drying lamp, all should be used in conjunction with especially designed aluminum or gold-plated reflectors. Rated laboratory life of the new drying lamps is in excess of 5,000 hr.

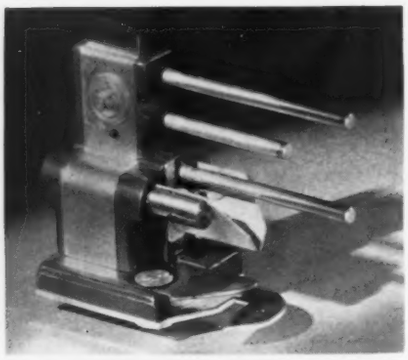


Photoelectric inspecting-machine control (Curtis & Marble)

Snick Plates

Additional information on the new-type snick plates introduced about a year ago by Barber-Colman Co., Rockford, Ill., has recently been released. Both breaker and quick-adjustable types are available. The former is recommended for mills producing exceptionally high-quality yarns which require a maximum amount of cleaning, and for selective cleaning. The latter is best suited to mills having a variety of yarn counts and qualities.

In the breaker type, cleaning is done by a single blade, pivoted on a shaft and held in position under light spring pressure, but free to move whenever contact is made with an imperfection in the yarn. When this occurs, the movement of the blade clamps and breaks the yarn. The other type plate uses the same principle for cleaning as on previous types.



Snick plate (Barber-Colman)

This consists of two blades having teeth on the lower edge and located parallel with each other. The yarn traverses midway between these blades and parallel to them.

Both types have the quick-adjusting feature, which permits accurate setting for any count of yarn being run and makes it possible to change from one setting to another on an entire spooler in a few minutes time. Any number of different settings can be used on the spooler at the same time. In addition, both types have been made more accurate and improved mechanically to reduce wear.

Telephone-Call Timer

Tele-trol, a device offering protection against overtime on long distance telephone calls and teletype messages, has been developed by Holcomb & Swenarton, 92 Liberty St., New York. It is expected to be of considerable interest to mills, sales agents, converters, and similar organizations.

Tele-trol is a clock-like mechanism, graduated in 15-second intervals. As

Telephone-call timing device (Holcomb & Swenarton)

soon as a call is connected, a touch of the lever starts the device. A warning bell rings 15 seconds before the 3-minute long-distance period is ended, thus allowing ample time to close one's conversation before incurring overtime charges.

Slasher Exhauster

For handling air containing steam, dirt, fumes, paint spray, grease, vapors, etc., a slasher exhauster has been developed by L. J. Wing Mfg. Co., 154 W. 14th St., New York, as a companion to its elbow-type exhauster. It is available in horizontal or vertical design, with belt drive which permits selection of any fan speed to fit conditions of air volume and resistance.

The device is equipped with a Wing-Scrupiex propeller fan, which delivers

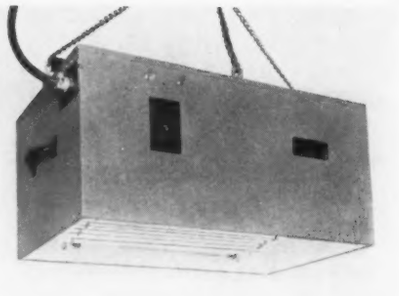
Slasher exhauster (Wing)

large air volumes against duct or wind resistance. Location of the motor outside the air is said to keep it clean and cool, and to reduce fire hazards when air mixtures being exhausted are inflammable or explosive.

Color-Matching Lamp

Analyte, a new type white light developed for matching colors, has recently been announced by Color Analysts, Inc., Bloomfield, N. J. It is a luminous daylight lamp designed to produce a soft, diffused, but penetrating white light. The light is said to contain the necessary proportion of blue, as well as red, needed for accurate color matching. Mazda Lumiline lamps are installed in the reflector and may be alternated with the daylight for comparative matching under artificial illumination.

The light is produced by gaseous discharge tubing, and, since it is white at its source, no corrective filters or fluorescent coatings are required. The clear glass tubing used is bent in the form of a grid covering the entire area of the reflector surface. The white porcelain reflector is easily cleaned, simply by wiping with a damp cloth.



Color-matching lamp (Color Analysts)

Models now available operate on 115 volt, 60 cycle a-c., and require a line of 40 ampere capacity. Power consumption is 1,700 watts.

Moisture Detector

A portable and easily operated moisture detector is being offered by Colloid Equipment Co., Inc., 50 Church St., New York. An electrode consisting of two needles is pressed into the material to be tested, and a knob-dial on the instrument case turned until an indicator lamp lights. The moisture content is then read directly from an indicating dial. The entire unit weighs only 4 lb. Determinations can be made in 1 min. by an unskilled laborer, it is said.

Moisture detector (Colloid)

Fluorescent Lighting Fixtures

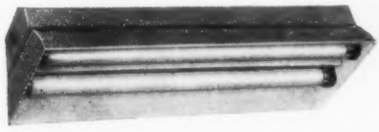
A line of fluorescent lamp fixtures said to be especially adapted to textile-mill requirements has been made available by Van Dyke Industries, 2857 S. Halsted St., Chicago.

In a multiple-tube fixture, the two-tube auxiliary is said to reduce stroboscopic effect to a minimum; it is recommended for installation wherever this effect is undesirable. A screw-in, socket-type fixture features the fact that it is entirely self-contained, and can be inserted in a socket as simply as a light bulb; this unit is said to be particularly suited

to use in present drop cords or side lights, where it is not desirable to do additional wiring.

Another unit in the line is a single-tube, suspended-hood type recommended for inspection work and general illumination. There is also a strip-type self-contained unit, for ceiling or suspended mounting.

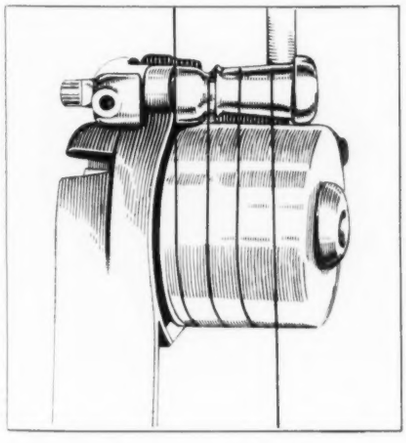
All fixtures, except the socket-type unit, are available in 18-, 24-, 36-, and 48-in. lengths. The socket-type unit is supplied in 18- and 24-in. lengths. Likewise, all the fixtures, with the same exception, can be used with either a-c. or d-c. current. The socket-type unit is for a-c. only.



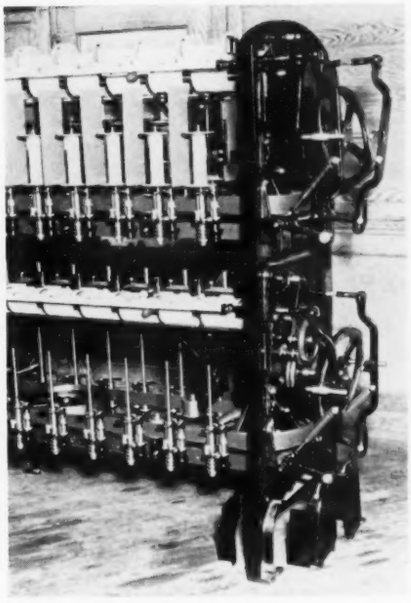
Multiple-tube fluorescent fixture (Van Dyke)

Separator for Throwing Machines

An improved separator for use on throwing machines of the 5-B type is being marketed by H. J. Hufford Silk Appliances, 1518 W. Glenwood Ave., Philadelphia. It is said to give a positive feed without slippage; to gather the single ends as it feeds, and keep each lap separate; to make possible uniform S or Z twist; and to reduce friction tension on porcelain eyes, thereby increasing their life. Additional advantages cited are that waste is reduced and roller laps practically eliminated. The accompanying illustration shows the device as applied to a large single-roll unit.



Separator (Hufford)



Heavy-duty silk twister (Fletcher)

Heavy-Duty Silk Twister

Better operation and increased production, while handling larger packages at high speeds, are among cited advantages of a new heavy-duty silk twister manufactured by Fletcher Works, Inc., Glenwood Ave. and Second St., Philadelphia. The machine was shown for the first time at the recent Knitting Arts Exhibition.

For use in this machine, the company's "Oilwell" spindle has been redesigned and improved to make possible handling of heavier yarn packages at the higher rates. The machine will produce either bobbins of conventional type or headless packages. Selection of maximum economical speed, with relation to balance of bobbin and yarn loads on packages of various types, is said to have been made possible by means of a special device recently developed by the company for the purpose.

Individual swing and swing-support assemblies are a feature of the new twister. Their design, it is stated, assures uniform spindle speeds and perfectly aligned spindles. The supports are so mounted that adjustments may be made rapidly and accurately. Ease of stopping individual spindles and bobbins is increased by means of brakes which are fitted to the spindle swings.

Another innovation which has been developed for use with larger packages is the collapsible guide eye. The eyes are so mounted that they may be adjusted to any position over the spindles; this is said to assure uniform and controllable balloons. When the bobbins are being changed the guide eyes fold up and out of the way. The balloon separators with which the machine is equipped are available in either metal or fiber and are of sufficient size to extend from below the lower head of the bobbins to well above the guide eyes. Separators are made up in units in such a manner that they may be easily removed when they might interfere with maintenance work.

Other mechanical improvements include a more sensitive belt-tension control and a motor mounting so arranged that the torque of the motor will not affect straight-line motion. Each deck of the double-deck machine is driven from an individual motor, and so arranged that endless or lapless belts can be installed without disturbing machine adjustments.

The company's unit-control feature has been retained. It consists of a self-contained unit which controls both twist and traverse. Twist and traverse gears are readily accessible, and twist gears are so arranged that the number of teeth is the same as the number of turns per inch in the yarn.

Frames, rails, motor supports, and other structural parts have been redesigned for use of heavier package.

Useful Accessories for Textile Mills

Lubricator. Simplex Mfg. Co., Detroit, Mich., is marketing an automatic lubricator which can be used to replace grease fittings or oil cups of various types; it is said to provide a constant feed to the bearing regardless of viscosity or temperature changes.

Recorders. Taylor Instrument Cos., Rochester, N. Y., have released a new line of recorders. Cases are drilled and tapped to receive any one of five standard control mechanisms, should it be desirable to add it at a later date. Time required for changing charts is cut in half by a mechanism that combines the chart locking device and pen lifter. The instruments are available with 10 in. or 12 in. charts, and with one, two or three pens.

Pillow Blocks. Dodge Mfg. Corp., Mishawaka, Ind., is manufacturing double-interlock pillow blocks designed for simplified mounting on ordinary commercial shafting where less heavy loads are to be carried than those requiring the clamp sleeve type of bearing manufactured by this company. Cap and base are machined at the joint to insure an accurate fit; seals are provided to retain lubricant and protect the bearing.

Revolving Joints. Barco Mfg. Co., 1801 Winnemac Ave., Chicago, recently developed revolving joints in sizes from ½ to 2 in. Two ball seats permit flex-

ing to relieve piping strains; the rotating sleeve is arranged to permit expansion and contraction of the roll or drum without strain on the joint. In tests the joints have been run at speeds up to 1,000 r.p.m.

Sealed Bearings. SKF Industries, Inc., Front St. and Erie Ave., Philadelphia, has announced a line of double-felt sealed ball bearings having single row widths. The bearings are said to be suitable over a wide range of speed and to have ample lubricant space. They are available for shafts up to approximately 1 in. in diameter.

Corrosion-Resistant Alloy Sheets. Haynes Stellite Company, 30 East 42nd St., New York, has announced it can now furnish rolled sheets and plates of Hastelloy alloy C, a corrosion-resistant nickel-molybdenum-chromium-iron alloy. Advantages of this alloy cited include that it effectively withstands strong oxidizing agents and aqueous solutions containing chlorine or hypochlorites; and that in rolled form, it has a tensile strength in excess of 75,000 lb. per sq. in.

Shipping Boxes. Hinde & Dauch Paper Co., Sandusky, Ohio, has developed a new line of pebble-grain kraft paper finishes for its shipping boxes, said to retain all of the cushioning flexibility and protective features of corrugated board, and add a new note of dignity and class.

Industrial Contactors. Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., has announced a line of improved, heavy-duty, d-c. magnetic contactors. The wearing depth of contacts has been increased approximately one-third, it is said, thus prolonging the life of the tips; and heat is more efficiently conducted away from the contact surface by an enlarged mass of copper.

Bearing Seal. Fafnir Bearing Co., New Britain, Conn., has made available a new bearing-seal design which features high sealing efficiency without any contact material. The seals are obtainable in single-seal, double-seal, and seal-and-shield combinations, on this company's radial and wide-inner-ring bearings.

Exhaust Heads. Cochrane Corp., 17th and Allegheny Ave., Philadelphia, is introducing exhaust heads said to insure separation of condensate and oil from steam discharged to the atmosphere, thereby preventing raining of water and oily condensate upon the roof or ground below, and at the same time discharging clean, dry steam noiselessly. The heads are of one piece semi-steel construction for 4 to 12 in. sizes, and of welded plate for larger sizes.

New Dyes and Chemicals

Resin Finish

For production of flexible, lustrous finishes, Glyco Products Co., Inc., 148 Lafayette St., New York, has developed a compound resin solution in alcohol. This compound, known as Hevealac, can be applied by dipping, spraying, or brushing. It is said to dry rapidly, giving a clear, transparent film characterized by high elasticity and gloss. The films are said to be practically non-flammable when dry; to adhere strongly to most surfaces; to retain their flexibility at low temperatures; and to be unaffected by water, oils, and most hydrocarbon solvents.

Detergent and Semi-Bleaching Agent

Development of a new type of detergent, penetrating, and semi-bleaching agent has been announced recently by American Textile Chemical Co., 36 Pleasant St., Watertown, Mass. This compound, known as Amtex, is recommended for scouring wool, cotton, and rayon; for boiling-off hosiery, etc. Since it acts as a semi-bleaching agent, as well as a deterent, Amtex, when used for scouring wool, frequently eliminates the need for subsequent bleaching. Other advantages cited are that it produces a softer and loftier wool; speeds up the operation; removes grease, paint, and other foreign substances more completely; gives less shrinkage; results in greater absorbency; and leaves a smaller residual foreign content in the wool. In addition, it is said to rinse readily, thus permitting savings in water. It is stated that wool scoured with Amtex dyes more uniformly, is better penetrated, and requires less dye to produce a given shade.

For hosiery dyeing, the new material is particularly recommended for use with the one-bath method of boiling-off and dyeing. It is said also to have no harmful effect on the fibers when employed for scouring viscose or acetate rayon. The manufacturer states that use of Amtex will reduce the time for kier-boiling cotton fabrics and still give a better bottom.

Amtex is described as an entity, being used without other compounds. It is said to contain no caustic or other harsh alkalis.

Water-Soluble Resins

A new series of water-soluble vinyl resins, the polyvinyl alcohols, has been announced by E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Properties of the new compounds suggest a wide range of applications in the fabric coating field. For example, the resins can be used for coating and impregnation of protective clothing. The resins, designated as PVA, may be formed into strong films. If desired, the films can be made quite resistant to water. They are unaffected by oils, greases, fats, hydrocarbons, and most of the ordinary organic solvents. PVA solutions are said also to be powerful adhesives for binding particles of pigments and other solids to cloth and other base materials. Hardening agents and plasticizers may be used when desirable. PVA is available in a number of grades to meet specific requirements.

New Publications

Story of Textiles for Textile Men's Children

THE STORY BOOK OF THINGS WE WEAR, by Maud and Miska Petersham; The John C. Winston Co., Philadelphia; $2.50.

Textile men should be interested in what their children learn about textiles. This book is an excellent source of such knowledge. The talented Petershams supply accurate text, written to capture the imagination of the young, and made doubly interesting by illustrations in rich, vibrant, warm colors. The book is divided into four sections: Wool, Cotton, Silk, Rayon. It answers all the questions which our children are apt to ask us about the business in which we spend our lives.

This reviewer has tested the Petersham method on his own children. He found they were more interested in "The Story Book of Earth's Treasures" than in any fiction with the possible exceptions of "Snow White and the Seven Dwarfs" and "Pinnochio." When he took home "The Story Book of Things We Wear," he found an even greater response. So now he is going to invest in the other Petersham books: "The

Curtain Raiser

at the Eastman World's Fair Fashion Show

Bigger and better, this year, is the fashion show in the Eastman Kodak Building at the New York World's Fair. And here is the streamlined bathing suit that sets it off to a flying start. The fabric is as new as the abbreviated cut—a combination of Teca, Eastman's crimped acetate rayon, with dull and shiny Eastman continuous filament acetate rayon.

It is the first number in a widely varied group of men's and women's fashions, presented in dramatic form by a large cast. See the beauty and variety of textures now being created in Eastman acetate rayon, and see how well these textures lend themselves to fashions of today and tomorrow...A show you won't want to miss.

Eastman

ACETATE RAYON

A. M. TENNEY ASSOCIATES, Inc., 10 East 40th Street, N. Y., sales representatives for Tennessee Eastman Corporation, subsidiary of Eastman Kodak Company.

Story Book of Foods from the Field," "The Story Book of Wheels, Ships, Trains, Aircraft," and "The Story Book of Things We Use."

We old folks were brought up with too many blank spots in our knowledge of the things we wear and eat and use. Our children do not have to share our ignorance, thanks to authors like the Petershams.

New Insight Into Old South

FOLLOW THE DRINKING GOURD, by Frances Gaither; The MacMillan Co., New York; price, $2.50.

This is an easily read novel of antebellum days in the less civilized section of the cotton-growing South, unsettled Alabama. It is interesting from two viewpoints: One, in that it describes vividly the planting methods of those days when land was cheap and plentiful and cotton frontiers pushed ahead as fast as land was worn out; the other, in that it gives a slant on absentee landlord management, little known in the cotton South.

A hard luck story written about the slaves and overseers, it presents in a clean and healthy manner, an excellent picture of the field hand's psychology toward his job, his master, his overseer. One catches a new insight into the old South. One realizes that the big problem each slave owner faced was that of ever-increasing population which had to be fed from land which was ever decreasing in productivity.

The book is based on historic documents. Many of the quotations from the master's instruction book were also given in that scholarly work, "Cotton Kingdom in Alabama" (Davis). And because of its new approach to an old problem it adds a nice balance to a southern bookshelf.

Cotton Economics Plus Fiction

THIS SIDE OF GLORY, by Gwen Bristow; Thomas Y. Crowell Co., New York; price, $2.50.

Continuing the troubles and achievements of the Larnes and the Upjohns, Gwen Bristow merges the aristocratic and white-trash families through marriage, and then makes the most of the World War times in the cotton-growing section of the South.

She presents an interesting version of cotton economics in any war, and ties it all together with the eternal triangle theme which spices up her economic treatise. She points out benefits to be derived from following the doctrines of Government experiment stations on crop rotation, mechanized farming, able management plus hard work on the part of the manager, and has her heroine reap the harvest of balanced agricultrue while the aristocratic hero fiddles for fun.

It is a good story, and for a change it is good to read about the troubles of World War days instead of that other war which has become too much a picture of the South and the things the South will always stand for: cotton and acres of cotton land and the people who live for both not only because they represent livelihood, but because they love them.

History of Egyptian Cotton

JOHN SAKELLARIDIS AND EGYPTIAN COTTON; C. N. Livanos, Alexandria, Egypt; Price $3.

Although this book bears the name of the man who contributed perhaps more than anyone else in the development of the Egyptian cotton-growing industry, it is nevertheless a complete study of all Egyptian cotton. General historical background is given and descriptions of other varieties of Egyptian cotton than the well known Sakellaridis. There are numerous tables and charts, and staple diagrams of the eight growths in use during 1938–1939 season. The volume touches upon the various laws affecting cotton seed and the growth of cotton, describes the Alexandrian Cotton Exchange, and lists the various cotton varieties grown in Egypt from 1810 to the present, with the names of the discoverers of each of the varieties.

British Textile Directory

BRITISH AND DOMINION TEXTILE INDUSTRY; John Worrall Ltd., Oldham, England; Price in England, 12/6–; outside of England, 14/6–.

This complete British textile directory for 1940 is the fiftieth edition offered to the trade. It includes also Worrall's Textile Directory of Ireland, Scotland and Wales, together with information regarding the industry in Australia, Canada, New Zealand and the Union of South Africa. It is carefully indexed to facilitate reference.

Control Instruments

INDUSTRIAL INSTRUMENTS AND CHANGING TECHNOLOGY; Works Progress Administration, Washington, D. C.

This publication discusses the role of instruments in industry, gives data on industrial instrument sales, discusses the economic effects of instrumentation in industry, and describes the principles of operation of instruments. Included also is a bibliography of general references and selected articles from periodical literature on the subject of industrial instruments.

Reference Data for Chemists

HANDBOOK OF CHEMISTRY, Third Edition; Lange; Handbook Publishers Inc., Sandusky, Ohio; $6.

Because of their accuracy and up-to-dateness, the first two editions of this handbook met a real need and found a cordial reception among chemists. The same high standards have been maintained in the present edition, and many of the tables have been entirely rewritten or extended to include more recent information. In addition, several entirely new tables have been added. One of the most important changes made in this edition is the inclusion of definitions of all column headings and technical terms used throughout the book. Textile chemists will find the volume to be particularly valuable when they are in need of information on some subject not included in their own specialized field; for instance, handling and storage of hazardous chemicals.

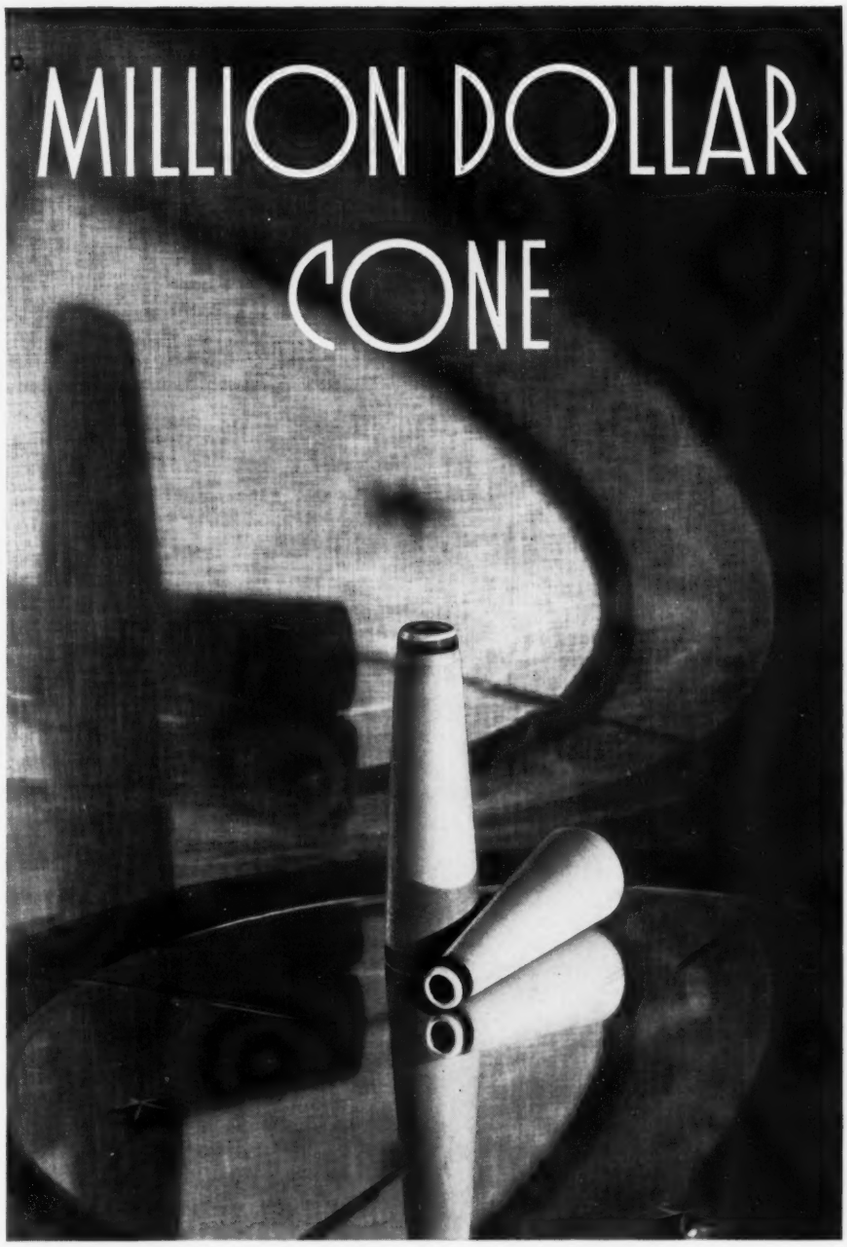
News of Suppliers

Carrier Corp., Syracuse, N. Y., is launching a "five-year plan" under which employees and officers will share in the fortunes of the company through salary bonuses and stock issues.

Scott & Williams, Inc., Laconia, N. H., has chosen R. E. Thompson as president, succeeding Robert F. Herrick, who held the post in the interim following the death early this year of Walter L. Toy. Mr. Herrick continues as chairman of the board of directors of the company.

Mann G. Berg, greige and production hosiery broker, removed on May 1 to new offices at 531 Shoemaker Road, Elkins Park, Pa.

Century Electric Co., St. Louis, Mo., has moved its Chicago district office to 600 West Van Buren St. The company held an Old Timers Party in St. Louis March 23 for those 20 years or



A million dollars is a conservative cost estimate of the scientific research, technical development, and productive equipment that have gone into making the SONOCO Velvet Surface Cone. Though an item of one time use, it is made to uniform micrometer accuracy, and because of its extremely low cost, its savings to the textile industry probably run to many millions . . . truly a million dollar product.

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DEPENDABLE SOURCE OF SUPPLY

more with the company. It was attended by 155.

Crompton & Knowles Loom Works, Worcester, Mass., is erecting a building in Charlotte, N. C., to improve its facilities there. Frederick Howe, Jr., is in charge of the southern branch.

Carbide & Carbon Chemicals Corp., New York, has appointed George C. Miller as sales manager of the Plastics Division which handles the Vinylite resins.

Grosser Knitting Machine Co., New York, has been succeeded by the Knitting Machine & Supply Co. as the result of the retirement of Max Nydegger formerly head of that concern and the organization of the new company by Mr. Nydegger's associates. Mr. Nydegger established the business in 1904. The firms address remains at 250 West Broadway.

Graton & Knight Co., Worcester, Mass., has elected Allen N. Bennett of Framingham, as president, succeeding Frederick E. Barth, resigned. Mr. Bennett, who continues also as treasurer, is vice-president, treasurer and a director of Barrett & Co., Inc., of Newark, N. J.

J. O. Draper Co., Pawtucket, R. I., textile soaps, has appointed B. G. Morgan, Chattanooga, Tenn., as its southern representative.

Quaker Chemical Products Corp., Conshohocken, Pa., has appointed J. C. Pirkle as its technical sales and service representative in the textile industry of North Carolina. He has been general superintendent of Faytex Mills, Fayetteville, N. C., and previously plant superintendent at Stonewall (Miss.) Cotton Mills. He will specialize on

Frank Reece, of Reece Button Hole Machine Co., Boston, who recently received a "Modern Pioneer" award based on his development of the rotary traverse now used by Universal Winding Co.

Diapene synthetic resins for sizing and finishing natural and synthetic fibers. D. E. Finkel has been added to the firm's staff to cover the textile industry in the Metropolitan New York and New Jersey area.

Erick-Gross Corp., New York, has been appointed sole selling agents for the United States and Canada for the high-speed tricot machine made by Collins Loom Works, Amsterdam, N. J.

General Dyestuff Corp., New York, will erect a warehouse, laboratory and office building in Charlotte, N. C., to be ready for occupancy Nov. 1.

General Electric Co., Schenectady, N. Y., reports sales billed during the first quarter of 1940 of $85,949,194, compared with $68,537,269 during the same quarter last year, an increase of 25%. General Electric has appointed Robert Peare as manager of its publicity department, succeeding Chester H. Lang, who becomes manager of apparatus sales. Mr. Peare was previously president and general manager of the Maqua Co., a printing and engraving concern affiliated with General Electric in Schenectady.

Universal Winding Co., Providence, R. I., has appointed Albert R. Breen as sales manager. Robert Leeson, formerly president and sales manager, will now devote all his time to his duties as president. During the last five years Mr. Breen has operated his own selling agency representing Universal

Albert R. Breen, sales manager of Universal Winding Co.

Winding and other textile machinery and accessories manufacturers. His experience in the winding field goes back 25 years.

U. S. Textile Machine Co., Scranton, Pa., has appointed A. L. Lewis, formerly vice-president of Atwood Machine Co., as sales representative.

United States Testing Co., Hoboken, N. J., following a precedent established in 1938, will again conduct a two weeks intensified training course in textile testing from July 8 through July 19. Training will be limited to 25 individuals. At the company's recent annual meeting D. E. Douty was reelected president, and A. L. Brassell and Chas. J. Huber, vice-presidents.

Owens-Corning Fiberglas Co's. vice-president, Games Slayter, recently honored as a "Modern Pioneer", is to receive on May 15 the Edward Longstreth Medal awarded by the Franklin Institute, Philadelphia, which is given "in recognition of meritorious work in science and the industrial arts."

Oakite Products, Inc., New York, held the annual spring technical sales conference of its Northeastern and Philadelphia Divisions in New York last month, and reviewed recently-developed cleaning materials and methods. Of particular interest were the Oakite

General Conference Committee formulates plans for National Conference of advertising and marketing executives in Detroit, Sept. 18 to 20, sponsored by the National Industrial Advertisers' Association. Left to right, seated: Ralph L. Wolfe, and T. B. Moule, of Seiler Wolfe & Associates; Lloyd R. Vivian, Ditzler Color Co., chairman; Henry G. Doering, Truscon Laboratories; E. C. Howell, Carboloy Co. Standing: Philip Linne, Owens-Corning Fiberglas Corp., Charles M. Gray, Chas. M. Gray & Associates; William J. Chappell, Timken-Detroit Axle Co.; A. F. Denham, Denham & Co.

AN AMAZING WELCOME FROM INDUSTRY FOR THIS BETTER ROLLER CHAIN

HERE'S a quick—though far from complete—list of Morse Roller Chain advantages: Interchangeable with all other standard round pin roller chains. • Channel lubricated. An oil feed system in every link. The heart of the chain is positively lubricated. • Rollers turned out of hardened, special alloy, solid bar stock. Stronger. • Heavier sideplates, made possible by Morse design. At least "heavy series" strength of other chains in ordinary Morse Roller Chain. • Join the swing to Morse Roller Chain. Ask the Morse man nearest you for complete data, or write Morse, Ithaca.

MAIL COUPON FOR NEW ROLLER CHAIN DATA BOOK—BULLETIN R54

Another helpful, informative Morse Engineering Bulletin, containing valuable information on roller chain selection, uses, maintenance. Every engineer should have one! This coupon or a letter to Morse, Ithaca, will bring it to you by return mail. Write today!

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MORSE CHAIN COMPANY
ITHACA, N. Y.

ADVERTISING PAGES REMOVED

solution-lifting steam gun for cleaning equipment and Oakite Composition No. 63, a material for kier-boiling operations.

William M. Stocker, now chief engineer of Cameron Machine Co.

Cameron Machine Co., Brooklyn, N. Y., has appointed William M. Stocker as chief engineer succeeding R. McC. Johnstone, resigned. Mr. Stocker joined Cameron in 1925, was for several years service manager and has lately been assistant chief engineer. He has been responsible for many of the improved features in Cameron winders, rewinders and slitters.

Carolina Aniline & Extract Co., Charlotte, N. C., has appointed Felix A. Tomalino to head the newly formed Mert department. He has had many years experience in the textile dyeing industry. The new department will carry this company's activities beyond the textile field.

Dayton (Ohio) Rubber Mfg. Co. has opened its southern district textile products sales office at Greenville, S. C. This office is in the Woodside Building, under management of J. O. Cole.

International Nickel Co., New York, announces that F. L. LaQue, who has been assistant director of technical service on mill products in New York, is now engaged in development activities on all applications of both ferrous and non-ferrous nickel-containing alloys. Dr. William A. Mudge has been appointed assistant director of technical service to succeed Mr. LaQue.

International Business Machines Corp. will hold its annual Hundred Percent Club convention at its Endicott, N. Y., plant this year, commemorating the 25th anniversary of the first IBM convention, held there in 1915 by its president, Thomas J. Watson. Less than 300 employees, including the entire factory force, attended the 1915 convention. Now the company employs more than 11,000 people, and it will be necessary to erect a tent city for their accommodation during the convention, which will occupy the week of June 24.

Yale & Towne Mfg. Co. has promoted James C. Morgan from his former post of general sales manager of the Philadelphia Division to the position of general manager of the entire Philadelphia plant. Mr. Morgan joined the company at Stamford, Conn., in 1922, and aided in making it a leader in materials handling equipment.

James C. Morgan, now general manager of Yale & Towne Mfg. Co.'s Philadelphia plant

Frank Griswold Hall, president of Stein, Hall & Co., New York, was tendered a banquet at Waldorf-Astoria recently in celebration of the 50th anniversary of his association with the company. In 1890 Mr. Hall's answer to a "help wanted" ad won him a $9-a-week job with the late Leo Stein who has just opened a New York office for Stein, Hirsh & Co., the original company organized in Chicago in 1866. Mr. Hall last month presented a gold pencil to every employee of the company, both here and abroad, as marking his golden anniversary. About 50 members of the Stein, Hall staff were present at the dinner including the branch managers: I. L. Griffin, Charlotte; E. I. Stokes, Philadelphia; R. D. Armstrong, Boston; J. A. King, Providence; W. B. Gager, Rochester

Cutler-Hammer, Inc., Milwaukee, Wis., has appointed E. F. Meyer to take charge of the company's Houston, Texas, territory with headquarters in that city.

C. D. Blackwelder, chemical and mechanical engineer and partner in the firm of J. E. Sirrine & Co., engineers, Greenville, S. C., was recently initiated into the North Carolina State College chapter of Tau Beta Pi, national honorary engineering fraternity. T. K. Mial, vice-president and general sales manager of the Johns-Manville Co., New York, was also inducted at the same time

Interchemical Corp., New York, is forming an export division headed by C. A. Richards. Among the company's products which are gaining in the foreign field are Aridye textile colors.

Lustre Fibres Ltd., selling agents for the American Viscose Corp., has moved its New York sales offices from 200 Madison Ave., to the Empire State Bldg., 350 Fifth Ave., New York.

Hart Products Corp., New York, N. Y., and Woodbridge, N. J., has appointed Sidney Edelstein to its research staff. He was lately vice-president and general manager for Lamed, Inc., and at one time chemist for Dixie Mercerizing Co. Mr. Edelstein is a graduate of M.I.T.

Arnold Hoffman & Co., Inc., Providence, R. I., in commemoration of its 125th anniversary as a manufacturer of textile chemicals has had designed a memento in the form of a bronze medallion. The theme portrayed by the sculptor is "Chemical Research for Peace, Health and Plenty"

THE OVERSEERS' CORNER

A PETE AND BILL DISCUSSION

RIDICULING MISTAKES

The air in Bill's office was practically blue with vitriolic mutterings when Pete stuck his head in the door for the daily chat. He savagely threw a wad of paper at the wastebasket before greeting Pete.

"Well, what do you want?" he asked the grinning Pete.

"Relax, my friend, relax," urged Pete, noting the veins standing out on Bill's forehead. "You don't have to bite my head off just because you are mad about something."

Bill lit a cigarette. "It's that dumb Smith boy again! He just pulled the doggonest boner I ever heard of. I happened to walk through the room, and there was that machine we stopped for repairs operating just as though nothing was wrong with it. By the time I reached it a thousand yards of goods had been ruined. And there stood John Smith grinning like an idiot."

"Well, what happened?" asked Pete suppressing a smile.

Bill dragged viciously at his cigarette before replying. "You know what he said? That he was just making use of his spare time like I told him he should do—in order to get ahead. This machine was just standing there, so he decided to start it up and practice operating it. Can you beat that?"

"What did you do about it?" inquired Pete.

"Relax," urged Pete . . .

"I took a sample of the ruined goods and pasted it on the bulletin board with a sign reading 'John Smith ruined 1,000 yards of this!' I ought to fire him, but his family needs help so badly I am going to give him one more chance. That publicity should make him more careful the next time."

Pete looked a little worried. "You shouldn't have done that, Bill," he said. "All that kind of publicity can possibly do is make the boy feel badly and also build up resentment in his mind toward you. Don't you know that ridicule is considered poor management these days?"

"I don't care what it's considered," said Bill beginning to flush up again. "All I know is that when some one pulls a fool boner like that you've got to make an example of him before the other employees."

Should stupid mistakes be ridiculed publicly?

Letters From Readers

Wife Can Aid Foreman

"The Foreman's Wife"
Pete & Bill, Feb., 1940

Editor, Overseers' Corner:

The discussion of Pete and Bill regarding the part which the foreman's wife can play in helping to make her husband's job run more smoothly has been read with interest. Pete's argument sounds very logical to me. The foreman whose wife is not afraid to mix with the people of the mill at church socials and other community activities or to visit them occasionally, especially the sick, has an advantage, we think, over the one whose wife cannot or will not do these things. There might be certain labor conditions which would make such contacts by the foreman's wife rather difficult, but by tactful, sympathetic understanding a woman can be of much help to her overseer husband even under such a situation.

P. L. H. (*South Carolina*)

Ambitious Worker Is Asset

"What Chance for Beginners"
Pete & Bill, Jan. 1940

Editor, Overseers' Corner:

Can a mechanical device be operated most efficiently if it is not oiled at regular intervals? Which machine can travel the greater distance in the same space of time, one that has gained momentum, or one that starts from scratch? Obviously, then, a foreman who clamps down upon the aspiring employee actually impedes in the development of a more powerful and sounder functioning unit in his plant.

An ambitious worker can well be classified as a potential asset to his company. The mere fact that an employee shows interest in various mechanisms should be more than enough

CONTRIBUTIONS to the letters and practical helps in "The Overseers' Corner" are paid for when published without regard to length. We use letters (not over 200 words) discussing the material on this page or any other pertinent matter whether of mechanical, managerial or just plain human interest. Those who contribute practical helps or kinks which are published (not over 500 words) will be paid additional for an appropriate sketch to illustrate their device. It is not necessary to submit finished drawings. Contributions of greater than specified length may be given consideration as articles. If these pages interest you —contribute something to them to interest others. Address Editor, Overseers' Corner, Textile World, 330 West 42d St., New York.

reason to allow that employee the continuance of such practice. If a foreman would consider for a moment that he, himself, had to pass through the apprenticeship stage, then it is quite probable that he would restrain from too harsh discipline for the aggressive beginner.

The man who seeks to learn and get ahead also prepares himself for the hard knocks. He may be temporarily stalemated, but once the obstacles are overcome his confidence is restored thus permitting him to prove his definite worth to his employer.

SIDNEY STEIN (*Mass.*)

Eliminate the Deadheads When Business Is Slow

"Reducing Labor Turnover"
Pete & Bill, March, 1940

Editor, Overseers' Corner:

I fully agree with Pete in teaching good workers more than one job. When a slack period comes along the ones to lay off are the ones who are inefficient or lazy, those who just get by. When business picks up, it usually does so almost overnight. This generally means that in order to get the work out on time a lot of new help is put on. Regardless of how carefully help is chosen a small number of deadheads will creep in. These are the ones to eliminate. I think that the good worker who has a bit of intelligence is readily adaptable, and can learn and perform more than one job and do it well.

JOHN H. ZALIS (*Canton, Mass.*)

Foreman Should Analyze Wife's Personality

"The Foreman's Wife"
Pete & Bill, Feb., 1940

Editor, Overseers' Corner:

It is an excellent idea for a foreman's wife to be active in community and social affairs, provided she is the proper type. Before encouraging his wife to mingle socially with his employees, a foreman should analyze her characteristics. If she is reserved, congenial, can command respect without being "high hat," and at all times can conduct herself in a ladylike fashion, her husband should encourage her to participate in employee activities.

On the other hand, should a foreman realize his wife tends to be a gossip and, because of other conduct, would not gain the respect of his employees and their families, he should discourage her from becoming active in affairs connected with his employees.

There is no doubt that a good wife can be a tremendous help to an industrial supervisor.

W. G. (*Philadelphia*)

Meet Jesse Clark,

Bibb's No. 1 Oiler

JESSE T. CLARK, of Bibb Mfg. Co., Columbus, Ga., is good and he knows it! When a spinning-room oiler can oil 13,400 spindles a day—twice as many as even a lot of good oilers, he has the right to know he is good. Not only is he efficient and dexterous with his oiling, but he has a record for getting the most work out of one bucket and oil can of any oiler we know or ever read about. His present can and bucket still have years of service ahead of them because Jesse has only used them four years and he intends to get much more valuable work out of them yet. The 40c. oil can which Jesse used before his present one gave ten years service and might have lasted longer had he not relinquished it to his superintendent to be sent to the general office of the company to be cherished as a museum piece. His 25c. bucket also lasted eight years. He says that the cost of an article has little to do with the care he takes of it, but that he has believed all of his life in taking good care of everything. He dislikes seeing anything abused.

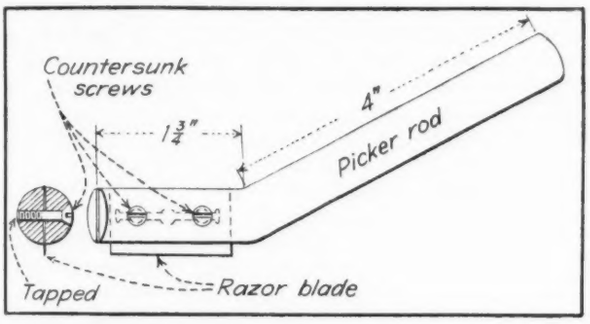
Jesse Clark is 54 years old and came to work for Bibb 19 years ago from Geneva, Ala. He has had an unbroken record ever since. This is the only job he has held since leaving the farm. For the last 14 years he has lived in the same house and has given each of his children a good education. Hunting and fishing are his chief hobbies.

Mr. Clark says no one need have an eye on his job because there isn't a chance of getting it! Through his own care and industry and the aid of the vocational classes which he attends regularly he intends to keep on being Bibb's best oiler, and several jumps ahead of the field. The company agrees with Jesse that his job is secure because they realize the cost of supplies in running a mill could be cut in half if there were numerous Jesse Clarks.

Jesse T. Clark can oil 13,400 spindles a day

[*Editor's Note:* This sketch of Jesse Clark appeared some time ago in the *Bibb Recorder*. We believe other companies publishing house organs or newspapers for employees might find it helpful to use these media as a means of recognizing ability and loyalty among their employees. Men and women like Jesse Clark are the backbone of the textile industry and it is reasonable that they receive the recognition that is their due.]

Overseers' Practical Helps



Tool for cutting shuttle fur can also be used for cutting strips of leather for facing box fronts and binders

Shuttle-Furring Tool

The cutter shown in the accompanying sketch makes an ideal tool for securing neat edges on strips of fur used to line shuttles, and avoids rough edges which often snub the yarn. A short length of picker rod is cut, and bent as shown. One end is slotted, with a hacksaw, so that a discarded razor blade can be fitted in. Two holes are drilled in the position shown, and tapped on one side for small setscrews.

When furring shuttles, place the piece of fur from which the strip is to be cut face down on a piece of soft wood, lay a straightedge on the hide side at the desired width, and draw the razor-edged tool along the straightedge.—O. L. P. *(Pennsylvania)*

Bobbin Remover

Bobbins persist in sticking on spindles on some types of twisting frames. A handy tool for removing these tight bobbins can be easily made from a discarded spindle, by bending the spindle into a long S shape. The heavier end of the tool fits snugly between the spindle cap and bobbin head of bobbins with a fair amount of clearance, while the narrower end of the tool fits better where there is less clearance.

To use this tool, hook it around the spindle below the bobbin; a slight pressure will then release the stuck bobbin.

—H. E. W. *(Pennsylvania)*

Elimination of an Aniline Black Trouble

A difficult operation, at times, is the printing of aniline black and Rapidogen-type colors in the same color combination. When the black is run in No. 1 position, it has a tendency to neutralize the alkali contained in the Rapidogen-type color. When the black is run in the last position on the machine, the caustic soda contained in the Rapidogen-type colors often causes a precipitation of the black paste, which cakes on the edge of the doctor blade and prevents proper cleaning of the printing roller. Precipitation and caking are also caused on the surface of the black roller at the points where an impression of the Rapidogen-type color figures is deposited by the printed cloth as it passes under the black roller.

Addition of extra acid to the black or weeping of the black does not give satisfactory results. The addition of 1 to 2 qt. of phenol, commonly known as carbolic acid, to 20 gal. of aniline black printing color will, in the great majority of cases, entirely eliminate this trouble.

MALCOLM MACKAY *(S. C.)*

Uneven Tape-Condenser Roving?

A good blend, thorough mixing, and proper lubrication will help eliminate it

By JOHN R. DUNN

DIFFICULTY IN PRODUCING even roving from tape-condenser cards is experienced by many woolen manufacturers. With a little analysis, much of this unevenness can be overcome. The most common type of unevenness traceable to tape condensers is ends which vary from light to heavy and which are not consistent throughout their length. Unfortunately, such ends frequently are unnoticed until they reach the cloth. Such unevenness may be caused by one tape, which has less tension than the others, being robbed by the tapes on either side of it. Or, it may result from a tape working itself slack between the separating rolls.

Most frequently the reason behind variation of this kind is insufficient mixing of stock in the picking room or poor blending. When stock is not picked thoroughly, coarse fibers may find their way through the card to the tapes, and make it impossible for the web to be separated evenly. This fault is frequently encountered when an attempt is made to increase production in the picking room, as the stock is not always picked sufficiently. Actually this is false production. The card is required to do the work that should have been done by the picker. This naturally slows down the card-room rate of production. The more thoroughly stock is mixed, the greater is the speed at which the card can be run without inferior roving resulting, and the more evenly the fibers will be presented to the tapes for separating.

Comparison of the rate of production of a picker with that of a card makes it easy to see the desirability of delivering to the card thoroughly mixed fibers, so that the card speed can be kept at or near maximum.

Stock blended for tape condensers must be given more consideration than that blended for ring doffers. While the cylinder of the card places the fibers on the rings freely, the action of the tapes in separating the web tends to bind the fibers together, imparting strength to them much as if the roving were being twisted. This makes it easy for uneven roving to be made, unless care is taken in selecting stocks to be blended and in making certain they are thoroughly mixed. For this reason, stocks selected should not only be of similar fineness but, as nearly as possible, similar in length.

ANOTHER NEGLECTED OPERATION is proper lubrication of stock. Fibers which require most lubrication, such as those which are well serrated and lofty, are those which do not take the emulsion readily. Therefore, they should be worked over more thoroughly to insure even distribution of the emulsion. Lower grades of stock, such as reclaimed wools in which fibers are broken and serrations damaged, require less emulsion, but absorb it more readily. If this point is remembered when oiling stocks, changing from one grade to another in the card room will be easier and necessitate fewer adjustments. Thorough oiling aids the carder in placing a new blend on a card, on which a lower stock has previously been run, without changing feed box

and condenser adjustments and speed of fancies.

If low-grade stocks are too heavily lubricated, the resultant yarn may be weaker than is actually necessary. This is because, when the stock is passing the overhead feed and/or the roving being wound on spools, excessive oil permits the poorly serrated fibers to pull apart easily. Again, since short fibers tend to lie between points of the wire, an excessive amount of emulsion will cause the fancies to pack them in the cylinder instead of raising them to the points of the wire.

A further point to be remembered in connection with lubrication of stocks is that, just as the hygroscopic property of wool affects its weight, so will a varying amount of emulsion in successive lots cause variation in yarn size. Care should be taken, therefore, to make sure successive lots of the same style have the same amount of lubrication.

Sometimes, in order to produce a yarn at a lower cost, a blend may be made from which it is practically impossible to make an even yarn, although the yarn may have the required strength. Also, on occasion, it may be necessary to substitute one stock for another during the running of a particular style. The overseer should immediately be informed of all such changes. Otherwise, much time may be lost in making adjustments, and imperfect yarn may find its way into cloth. When a change is to be made, it is wise to try out a sample before a large batch is picked. This not only affords opportunity of inspecting the yarn produced by the revised blend, but also gives foremen an opportunity to make helpful suggestions. Such suggestions usually are practical and often invaluable.

Needle Chart

Insures adequate supply at all times; prevents machine shut-downs

By FREDERICK J. QUILITZSCH

A PROBLEM in knitting mills is to set up some system which will guard against the possibility of running short of needles. Unless a close check is kept, there is always the possibility that one or more machines will have to stand idle, thus halting production. This is a serious matter, as evidenced by the fact that, since we run our machines 24 hours a day, if just one of our machines were idle for a day, there would be a loss in production of over 350 lb. of cloth. If the needles are of a special type which are made to order, it may take as much as six weeks to get deliveries. Eighteen months ago we set up a system to insure us against running short of needles. Since the system has been in use, we have not waited once for needles.

The first step was to make a list of all types of needles used in the mill. As most outerwear mills have several types of machines, many types and sizes of needles are required. The system should make certain that a complete stock of needles is on hand, without too large a stock of any sizes or styles.

Our next step, therefore, was to determine, and make a record of, how long it takes to get deliveries of each type of needle used. From this information and from records showing the consumption of various types of needles, we determined the normal number of needles of each type to be carried in stock, the minimum number of needles of each type to which the stock could be allowed to fall safely, and the number to be ordered when the stock reached that minimum. In deciding on the minimum, we allowed for enough needles to take care of any smash that might occur.

All this information, together with the manufacturer's system or type number of each needle, was put on a chart, as shown in the accompanying illustration. At the end of each day the stock of needles on hand is checked. If it is found that the stock of any type has reached the minimum number given on the chart, a new supply is ordered at once. We have found that with this system, it is a simple matter to keep an adequate stock of needles on hand at all times. If one has to look up the needle system number or other information, there is always the possibility that this task will be postponed and the necessity for ordering needles forgotten. With all the data readily at hand on the chart there is no danger of this.

A copy of the chart was made and posted in a conspicuous place in the knitting department. The purpose of this is to help the knitters to be sure that they use the right needles.

NEEDLE CHART

Machine	Needles	Stock		
		Normal	Low	Order
Brinton — 64 Feed 18 Cut	No. 3 42-Gage S.B.S.L. System No. 6007CS	1,000	750	500
Brinton — 64 Feed 14 Cut	No. 3 42-36-Gage S.B.S.L. System No. 6028CS	1,000	750	500
Brinton — 32 Feed 18 Cut	No. 3 42-Gage S.B. System No. 6002CS	1,000	750	500
Brinton — 32 Feed 14 Cut	No. 3 42-36-Gage System No. 6010CS	1,000	750	500
Cooper — 12 Cut	Top Cylinder, No. 12 T.S.J. Long Bottom Cylinder, No. 12 B.S.J.	500 500	300 300	300 300
Cooper — 14 Cut	Top Cylinder, No. 15 T.S.J. Long Bottom Cylinder, No. 15 B.S.J.	500 500	300 300	300 300
Crane — 36-Gage	36-Gage Spring Needle	5,000	2,000	3,000
Crane — 42-Gage	42-Gage Spring Needle	5,000	2,000	3,000
Scott & Williams — 16-Cut Interlock	Dial — Short No. 711 — 42-Gage System No. 6808D	750	500	250
	Dial — Long No. 710 — 42-Gage System No. 6807C	750	500	250
	Cylinder — Short No. 709 — 42-Gage System No. 6806C	750	500	250
	Cylinder — Long No. 708 — 42-Gage System No. 6805C	750	500	250
Wildman — 10 Cut Rib	Dial — 30-Gage System No. 4515D	750	500	250
	Cylinder — No. 4 24-Gage S.L. System No. 4759C	750	500	250
Wildman — 14 Cut Rib	Dial — No. 49 48-Gage System No. 7003D	750	500	250
	Cylinder — 48-Gage System No. 7326C	750	500	250
Wildman — 1 3/8" Tubing	No. 27 48-Gage System No. 7300C	500	250	250
Wildman — 7/8" Tubing	No. 67 60-Gage System No. 9300C	500	250	250

Loom Inspection System

Lowers repair costs, increases efficiency

By EARLE B. HOFFORD

LOOMS THAT ARE CHECKED and cleaned each time a warp runs out will give little trouble when new warps are started. Many times no fixing will be required, and a routine daily check will suffice to keep the looms in good operating condition. Fixing the small things as they occur will make sure there aren't any large repair jobs. This is advantageous to management, overseers, loomfixers, and weavers alike.

The loom inspection card reproduced herewith and described in this article was developed to make certain that essential points will be checked every time a warp comes out. Constant use of the card, and the system of checking outlined, will mean a cleaner mill, less repairs, a better place for employees to work, and more satisfied workers.

As soon as a warp comes out of a loom, a Loom Inspection Card is attached to it. At the top of the card are noted the date, the loom number, and the time at which the warp came out. Since a new warp should be in in 1 to 2 hr., depending on the character of cloth being woven, these data will enable the overseer to take due cognizance of any unusual delays.

Next, the card lists a number of things to do and items to check. After each part of the job is completed, the person handling it places his initials at the right side of the card opposite the particular operation.

The first step is for the porter or cleaner to clean the loom thoroughly. Then the loomfixer attends to the details listed, both before and after the new warp is mounted. Next, the smash-hand weaves 6 in. of cloth, and he and the loomfixer examine the fabric for defects.

After the smash-hand O.K.'s the job, 2 yd. of cloth is woven by the weaver assigned to the loom. The smash-hand, meanwhile, has passed the inspection card to the foreman, who, at the 2-yd. mark, gives the loom a final checking and signs the inspection card. This is the weaver's authorization to proceed.

The reverse side of the card is ruled, providing a place for noting adjustments and repairs made to the loom.

LOOM INSPECTION CARD

Date ..... **Loom No.** .....

Time warp came out ..... a.m. / p.m.

Loom cleaned thoroughly .....

Loomfixer:

- All nuts tightened .....
- Loom thoroughly oiled .....
- Bunter protection checked .....
- Sand-roll gears and bearings checked .....
- Picking checked .....
- Sweep—plain side .....
- —box side .....
- Clothroll friction loose .....
- Brake set for stop before reed hits cloth .....
- Drive gear tight .....
- Whiproll smooth and clean .....
- Shuttle boxes cleaned out .....
- Shuttles polished .....
- Cut rings, pins, and rubber checked and changed if necessary .....
- Reed placement and movement checked .....
- Warp-tension weights correct .....
- Warp not binding .....
- Shed at correct height .....
- Every shaft at same height .....
- Warp not riding on lay .....
- Drop-wire connections tight .....
- Drop wires dancing .....

Smash-hand:

- Filling gear checked .....
- Cloth checked for wrong draws, misreeds, ends out, pattern, filling, weave, etc. .....

.....

.....

.....

Weaver must stop loom after 2 yd. has been woven, and get foreman's O.K. before proceeding.

Loom O.K. .....

Foreman's signature

STAPLE COTTON FABRICS

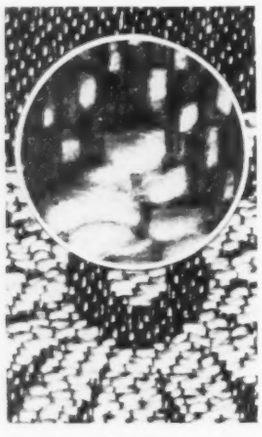
By JOHN HOYE
Fabric Technician with W. Harris Thurston, New York

This fifty-second installment of Mr. Hoye's series of articles on staple cotton fabrics — which began in the January, 1936, issue—continues the discussion of bedspread fabrics.

Bedspread Fabrics

In the last half of the nineteenth century 95% of the spreads used in the United States were bleached white. One of the staple spreads was the marseilles, woven with raised jacquard figures; this was a heavy spread, weighing 4 to 5 lb. in the standard size of 86 x 105. Also used was the crochet spread; this was a medium-weight spread, with crochet-like effects. The white satin quilt spread succeeded the marseilles; it weighed 3 to 4 lb. and had jacquard figures similar to the marseilles, but not so highly raised.

About 1890 John Mitchell came to this country from England and introduced a colored spread, which was called the "mitcheline spread." This was made in three weights—3, 3½, and 4 lb. Originally it was woven from coarse, colored yarns. Later a finer and lighter mitcheline spread was made, which was the forerunner of the present-day colored spreads; these spreads are still being used to a limited extent. About 1910 the rayon spread was introduced and was sold extensively, but is now less popular. The candlewick spread, which is a hand-made tufted spread employed in Colonial days, again became quite fashionable about 1925. Some five years ago the chenille type of tufted-yarn spread came into prominence.



Jacquard-woven, flat-design bedspread fabric, 86 in., 68 x 24, 0.81 yd., dyed singles warp yarns, white spiral filling yarns

Dobby-woven Mexican or peasant-type bedspread fabric, 86 in., 32 x 28, 0.80 yd., dyed 2-ply warp yarns, 2-ply, white filling yarns, colored roving filling decoration

JACQUARD-AND-DOBBY DESIGN SINGLE (FLAT) FABRICS. These are referred to as colonial, peasant, damask, homespun, etc., according to the patterns and colorings used. In these fabrics one warp and one filling are employed and the design is more or less flat. The design is made as distinct as possible by using contrasting yarns, colors, or types of yarns (spiral, chenille, roving) or by weaves, such as honeycomb, etc., which give a definite character to the fabric. Many jacquard-woven colored-yarn spreads sold under the name of woven-design spreads are flat-design fabrics. These are made with fine yarn-dyed warp yarns and bleached white, spiral filling yarns. The design, usually in white, is formed by the heavy spiral yarn which stands out in contrast against a colored background, usually a broken twill of fine, closely woven, single warp ends. Some of these fabrics are name-woven; i. e., woven with name or initials of a hotel, club, etc.

Example of jacquard-woven, flat-design, single-bedspread fabric:

86 in., 68 x 24, 0.81 yd. (finished)—fine colored singles warp; heavy white spiral-yarn filling (white spiral yarn forms pattern on colored broken-twill-weave ground).

HAND-PAINTED BEDSPREAD FABRICS. White or eggshell colored-yarn floats of floral patterns on jacquard spreads are sometimes hand painted or sprayed with colors which either contrast or harmonize with that of the ground, producing decorative effects.

DOBBY-DESIGN SPREAD FABRICS include Mexican, homespun, or peasant types made with both unbleached and dyed warp yarns and unbleached filling yarn. Heavy, ply, colored roving yarns are also used for decorative lateral stripes and other design effects woven over neutral-color backgrounds.

Examples of dobby-woven spread fabrics:

(a) Colored-yarn, checked, homespun-type fabric: 76 in., 28 x 28, 0.69 yd., heavy plied unbleached warp and filling yarns.

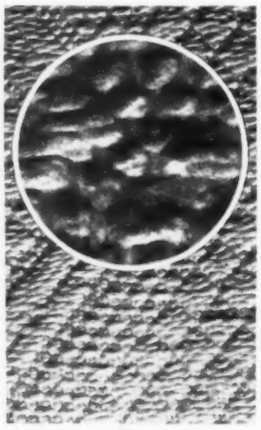
(b) Mexican-type fabric with bright colored lateral stripes: 86 in., 32 x 38, 0.80 yd. 2-ply tan warp yarns, 2-ply white filling yarns, 2-ply colored roving for filling decoration.

CROCHET OR HONEYCOMB TYPE BEDSPREAD FABRICS are generally bleached white fabrics made with yarns of contrasting sizes (fine ply warp, heavy ply filling) and woven with honeycomb or waffle-like weaves. Due to the combination of yarns and weave used, these fabrics have raised and flat effects on the face, which resemble crocheted or stitched effects. They are also made in small all-over dobby-woven designs of unbleached and colored yarns.

Example of crochet bedspread fabric:

Bleached, all white, 72 in., 32 x 26, 1.09 yd., honeycomb or waffle weave, fine 2-ply warp yarns, coarse 2-ply filling yarns.

Correction: The table-cover fabric with shamrock pattern illustrated in the February issue was incorrectly described as a dobby-woven fabric, whereas it is actually a jacquard-woven fabric.



Jacquard-woven crochet bedspread fabric, bleached, all-white, 72 in., 32 x 36, 1.09 yd., honeycomb or waffle weave, fine 2-ply warp yarns, coarse 2-ply filling yarns

QUESTIONS & ANSWERS

Oiling Wool Stock

Technical Editor:

Regarding use of wool oil on stock: Should each 100 lb. or 1,000 lb. of wool mixture contain the same amount of oil or emulsion? We believe that different grades of wool may sometimes require different amounts of oil, but are not sure as to just what the general practice is. What started us on this investigation was the fact that our men seem to think that certain colors, such as black and dark navy, require more oil than light colors and white. If you can give us any information on this point, as well as on the question regarding different amounts of oil on different grades of wool, we shall appreciate it. (8586)

This question of oiling of stock is one of those things on which there is no unanimity of opinion, and on which picker-room foremen and carders have been arguing as long as we can remember. It is our opinion that trouble such as you seem to have encountered is frequently due to improper drying of stock after dyeing. If the stock is not over-dried, and if it is allowed to regain the proper percentage of moisture before being further processed, you should experience little difficulty in handling dark and light colors, giving each the same amount of emulsion. In cases in which dark-colored stocks have been over-dried or used before they have had a chance to regain their normal moisture content, it is sometimes helpful to increase the amount of water in the emulsion applied to the particular stock. There is, of course, always the chance that such moisture will evaporate from the stock before it is carded, and thus result in production of a lean roving. However, in such cases, provided they are not extreme, lean rovings can usually be spun sufficiently on the heavy side to produce a yarn of satisfactory size and weight.

As stated above, there seems to be no unanimity of opinion on the amount of oil to use but, in general, fine wools require more oil, and coarse wools more water, in the emulsion.

Winder Spindles Per Loom

Technical Editor:

How many spindles per loom would be required on a Universal filling winder under the following conditions: One run woolen yarn, loom width 100 in., loom speed 100 picks per min. (8692)

To determine the number of filling winding spindles which would be required per loom with the above set-up, it is only necessary to compare yarn take-up per minute on the loom with yarn take-up per minute on one winder spindle. The following formula can be used for the loom calculation: (Reed width in in. × picks per min. × loom efficiency) ÷ (in. per yd.). This will give the yards of filling required per loom per minute.

Knowing the time required to build a bobbin on the winder, and the yardage per bobbin, take-up speed on the winder can be quickly figured, with an allowance made for the efficiency at which the machine is operating. Then, by dividing the winder take up into the loom take-up, the number of spindles per loom can be obtained.

The same comparison can be made between winding and warping, twisting, or knitting equipment, to balance production from one department to another. By working on the basis of yards per minute, it is not necessary to include any particular yarn number in any of the calculations.

Waste in Silk Mills

Technical Editor:

Kindly advise what is the general average allowed for waste in silk mills at the present time on winders, warpers, and twisters. Also, what is the general allowance on Bemberg 100-den. filling. (8653)

Practices for figuring waste allowance vary, and there are no established rules. Some mills figure a net thrown yardage which takes care of all winding, warping, and throwing waste; and then figure weaving waste additional in their calculation. Others figure a gross yardage and make one deduction to cover all waste.

Waste depends upon mill conditions, type of machinery, grade of silk used, whether or not yarn is cleaned, type of cop, size of bunch in quilling, all of which should be established by actual results and not by rule of thumb. The following figures probably represent a general average for the more modern type of mills with fairly up-to-date machinery, catering to the weaving trade:

Winding waste for silk in commercial deniers and of a fairly good grade should not exceed ½ of 1%. Warping waste, on same silk as above, with horizontal frames, should not exceed ½ of 1%; this to cover redrawing of the raw silk skeins, as most mills remove partially empty bobbins to save time in warping and avoid excessive waste, and redraw and refill same. Throwing waste should not exceed 2%, this to cover 5-B, up-twisting, and redrawing.

On 100-den. Bemberg filling, which should be an exceptionally good running yarn, assuming same is woven in natural state, waste should be within 2 to 2½%. This to include winding, quilling, and weaving waste. In many instances Bemberg fabrics are woven with knotless yarn to avoid shiners and other defects; this in turn necessitates many partially filled cops, in which instance the waste might reach 3 to 3½%.

Loop Selvage

Technical Editor:

Inclosed is a sample of cloth having a loop selvage. Can you give me any information on how these loops are made? Are there any special attachments for the loom, other than just a wire? (8711)

Loop selvages are sometimes used on ribbons, trimmings, and other fabrics where a thick edge is undesirable. Pearl edges, as they are called, are made by temporarily interlacing the filling around a wire or horsehair placed at each side of the fabric.

Sometimes the wire is fastened at the back of the loom, passed through a heddle eye, the reed, and the temple, and extended for a few inches to the front. At other times the wire is fastened to the heddle eye instead of extending to the back of the loom, so as to put less strain on the wire.

The wire is automatically pulled out of the woven fabric as the cloth is pulled down by the sandroll. A good grade of fine, flexible wire should be used, to eliminate the necessity of frequent replacements. Unless there is room to pass the wire between the end of the temple roll and the heel of the temple it will probably be necessary to extract a few pins from the temple roll to form a groove for the wire. The length of the loop desired of course governs the number of empty dents to be left between the wire and the edge of the woven fabric. When two harness are weaving plain and loops are to be formed on both sides of the cloth, the wire will be drawn through an eye of one harness on one side of the cloth and through an eye of the other harness on the opposite side of the cloth, so that every time the shuttle passes from one box to the other a wire is lowered to catch the filling.

Occasionally, a heavy cotton yarn is used in place of a wire, and weaves as a regular warp end throughout the length of the warp. At the end of each cut this end is pulled out. Naturally,

the cost of the cotton end and the expense involved in pulling it out make this method more expensive.

It is not necessary to have any attachments except those indicated above in order to weave loop selvages, although it may be necessary to do some experimenting in order to get the wire properly adjusted in the reed and temple.

Finishing Cotton-Warp Melton

In the April issue of TEXTILE WORLD, in answer to Question 8542, construction details for a 23 oz. per yd., 56 in. wide cotton-warp melton were given.

The finishing routine for this fabric comprises heavy filling in width only; the trap should be heavily weighted to prevent undue stretch in length during fulling. After fulling, the piece is scoured and piece dyed with union dyes to the desired shade. After this it is dried to 58 in. in width. The dense, matted cover resulting from the fulling operation must be drawn on to the surface by raising on the napper; in this cloth, both sides of the fabric should receive similar treatment, to insure complete coverage of the cotton warp yarns. In the shearing which follows, the fibers are reduced in length so as to form a short, uniform, dense, non-lustrous pile. Last, the cloth should be pressed.

Sizing Acetate Yarn

Technical Editor:

What formula would you suggest for sizing acetate yarns in a 9,000 sley satin warp made from 75/24/5 yarn? What effect would glycerine have on acetate yarns? Which would give better results as a softener, glycerine or sulphonated oils that contain castor, olive, or cocoanut oils? What agent could be added to a size solution to prevent foaming in the size pan? Would the amount of gelatin be increased or decreased if the sley was 6,000 instead of 9,000? (8663)

It is impossible to give hard-and-fast rules regarding sizing of acetate warps without having full information regarding type of sizing machine and other local conditions. We are inclosing copies of articles from TEXTILE WORLD giving results of tests made with various sizes and concentrations of size.

Some acetate yarns can be sized satisfactorily with gelatin and glycerine alone. For best results, others require use of gelatin, glycerine, a softener, and possibly a solvent, such as diethylene glycol. There are now on the market a number of prepared sizes which contain gelatine, softeners, etc. As a starting point, you might try one of these in the proportion of 1 part of size to 10 parts of water, if the yarn is run through the nip, or 1 to 13, if the yarn is immersed in the size.

Use of glycerine in addition to the softening oils contained in the size will prove beneficial, especially where there is a lack of humidity in the weave room. The glycerine should be used in the proportion of 1 part to every 18 or 20 parts of the dry prepared size. It makes the size coating somewhat more pliable, without robbing the yarn of its protection. Softeners employed include sulphonated castor, olive, and coconut oils, and soluble mineral oils. They may be used alone or with glycerine, but have a somewhat different function from glycerine.

Unless the squeeze roll is covered with a woolen boot, there should be no foaming in the size pan, provided the right kind of a balanced prepared size is used. When home-made sizes are used, composed of glue or gelatine mixed with oils, foaming may be due to the fact the ingredients do not work with each other. There are several brands of defoamers on the market.

Somewhat less size can be used for 6,000 ends than is used for 9,000 ends provided the yarn is the same denier and for the same construction.

Twits in Knitting Yarn

Technical Editor:

One of our yarns is made out of 65% coarse bleached white rayon open waste, 20% Peruvian strips, and 15% reclaims. We are troubled with twits, sometimes as long as 1½ to 2 in., which contain only the long rayon fibers. You will see some of these in the knitted fabric inclosed. Our three-cylinder card sets are equipped with Apperly feeds, and have 20-in. ring roffers. Will you please give us some suggestions as to how we can prevent these twits from forming? (8671).

The information given is so meager that it is hard to narrow the cause to one thing. To begin with, the blend is not good. The rayon is too coarse to mix with the Peruvian cotton. One might say the mix was not evenly made, but when the good yarn is pulled apart it looks even enough. The batch might be too dry or, if it is oiled with a sprinkling can, too much emulsion might be on one spot. It would be better to put the emulsion on with a fine spray.

You do not state whether the roving has twits or whether the trouble shows up in spinning only. However, since you mention the cards, it is probable that is where the trouble is occurring. Slippage is usually caused by strain. This can occur at the wipe roll, if the roll is going too fast; between the back and front aprons; and/or between the apron and the spool drum.

It is also quite possible this is a spinning problem. We would suggest that the weight from the card be 270 grains for 50 yd., assuming that the yarn is 1.60 typp (1 run, 5⅓ cut). The carriage should go a little faster than the rolls deliver (assuming it is spun on a mule) and plenty of drawing twist should be put in to hold the fibers together during this operation. Also, you should have no tension between the drums on the mule and the delivery roll.

This covers the whole range, but it seems necessary in view of the little information at hand. If the proper facts were obtained as to size, draft, condition of roving, fancy speed, production from the card, speed of doffers, method of handling on the mule, etc., we should probably be able to give a more definite answer.

Static Electricity in Spooling

Technical Editor:

We are having trouble with static electricity in spooling rayon yarn. I believe the yarn has a positive charge and, when wound on the metal-end spools we use, induces a negative charge in the spool. When the spool is running, as the traverse-guide carries the yarn to the end of the traverse, the yarn is attracted by the ends of the spool. This causes the spool to build up on the ends, and makes a very unsatisfactory package. We have grounded the machine, including metal guides and spools, but this does not seem to help. I would appreciate any advice you can offer as to how we can solve this problem. (8687)

Trouble with static electricity when spooling rayon yarn, particularly acetate on to metal spools, is quite common. Sometimes this trouble can be corrected by eliminating any metal contact—such as metal tension rods and guides—and substituting porcelain. It has been found that static electricity diminishes with an increase in humidity, so we would suggest that relative humidity be kept at 55 or 60%. We note that you use metal guides, and would suggest you work on this angle first, replacing the metal with porcelain.

The foregoing presumes that your trouble is due to static electricity. However, spools may build up on the ends if the traverse differential is not working properly, if the throw or the design of the cam is not correct, if you have back-lashing, or if the spool design is faulty. Although it cannot be wholeheartedly recommended, a condition such as you have mentioned can sometimes be overcome by winding a more firm bobbin.

We feel confident that checking the foregoing will assist you in solving your trouble. In the event that it does not, please give us more particulars as to the type and denier of yarn being run, preferably with a rough sketch of your method of running.

LOOMFIXERS' MANUAL

COTTON SECTION—Chapter X

By IVAR MOBERG

Automatic Filling Motions

AUTOMATIC FILLING MOTIONS operate to replenish filling without manual labor or stopping the loom. They may be divided into three types; namely, rotary battery for bobbin changing, stationary magazine for bobbin changing, and stationary magazine for shuttle changing.

The first of these can be used on fabrics which require only one kind of filling; the second, on fabrics requiring from one to six different fillings; the last, on fabrics requiring not over two different fillings. Usually, however, this latter motion is confined to silk, rayon, and heavy duck weaving. For that reason, it will not here be discussed in detail.

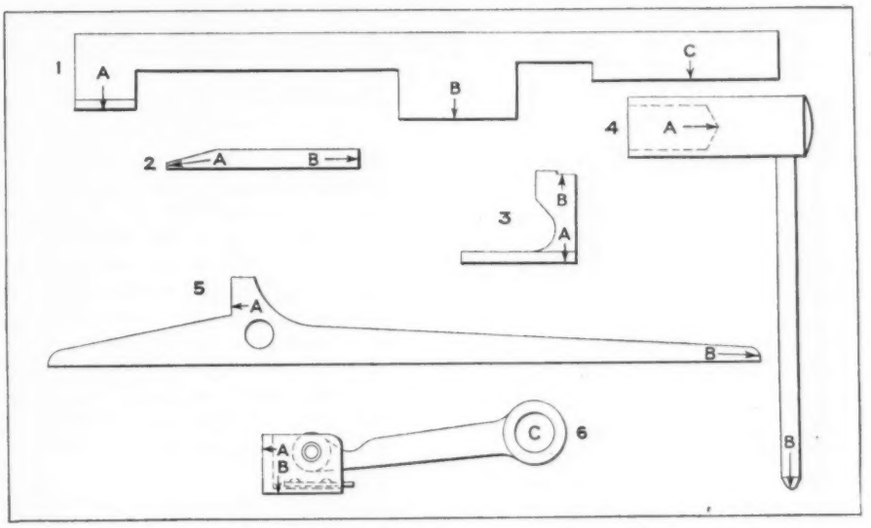


Fig. C72. Gages used in checking rotary-battery filling motions

Filling motions of the rotary-battery type are used mostly on Draper looms. Fig. C71 shows such a battery, with its component parts.

In resetting and readjusting these motions, it is first necessary to check with proper gages all distances which have bearing on proper operation of the motion. Remove hopper stand, box fronts, and box backs. Turn the loom over until the lay is at front center. Using Gage 1 shown in Fig. C72, so place it that the portion marked *A* rests on the center horn of the loomside; *B*, on the box plate; and *C*, on the breast beam. It may be necessary to refit the breast beam so that *C* will come flush with it, and the lay may have to be raised or lowered so that *B* will just rest on it. On looms with two-piece lay swords, this adjustment can usually be made by loosening the bolts in the lower end of the lay sword and adjusting its height until it just touches *B* on the gage. Otherwise, the position of the rocker-shaft boxes will have to be adjusted until the proper lay height has been obtained. Sometimes, it is necessary to drill new holes for the dowel pins in the rocker-shaft boxes. The correct position must, of course, be obtained on both sides of the loom.

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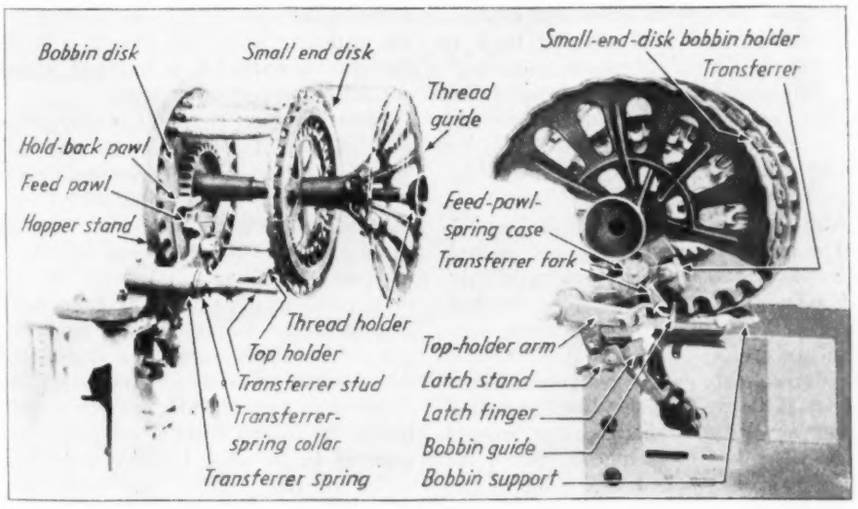


Fig. C71. Draper rotary filling battery for cotton looms

Replace and line up the box backs. With the lay still at front center (which is the position in which all the gages should be used) insert Gage 2 so that point *A* comes in contact with the inside of the front horn of the loomside, just below the breast beam, and *B* against the polished surface of the box back. Adjust the forward position of the lay until the two points of the gage will just go between the inside of the front horn and the box back. On some looms, this adjustment is made by turning the eccentric-crankarm pins in the lay sword; on others, the adjustment is made by shortening or lengthening the crankarms. There must be no play in the crankarms when this gage is used, and it must, of course, be used on both sides of the loom.

Replace the hopper stand and use Gages 3 and 4 simultaneously. Gage 3 contacts the lay end at *A* and the under side of the straight portion on the hopper stand at *B*. Point *A* on Gage 4 goes over the outside end of the bobbin-disk stud, after removal of the thread guide, and *B* contacts the lay end. Proper positioning of the hopper stand may require careful filing of the fitting pads on the top of the breast beam; should the pads be already over-filed, a metal plate can be placed between hopper stand and breast beam to obtain the proper height.

Insert Gage 5 from the outside end

of the shuttle box so that point *A* is against the outside of the hopper stand, and *B* flush with the extreme outside end of the lay end. At the same time, slip a pair of gages like No. 6 on a shaft which has been inserted in the hole for the transferrer stud in the hopper stand and lightly setscrewed in place. In using these gages the transferrer stud must be removed. The gages should be so placed on the shaft that *A* will indicate the reed line with *B* resting on the raceplate. Place the gages as far apart as possible, to obtain maximum accuracy. Now move the hopper stand from side to side and forward or backward, until points *A* on both gages are flush with the rear edge of the raceplate, or in the reed line. Gage 5 should be flush with the extreme end of the lay end at point *B* while point *A* rests against the hopper stand. In this position, tighten the bolts in the hopper stand. If the holes for the dowel pins do not line up correctly, drill new ones.

Use of gages in resetting and readjusting old batteries is very important and every mill should have a set of gages for each loom model which is installed.

WOOL SECTION—Chapter X

By BENJAMIN F. HAYES

Filling Kinks

FILLING KINKS are frequently a major problem of worsted loomfixers, since they can result in production of large quantities of imperfect cloth. These kinks generally are due to one of three causes. First, there are those caused when a filling pick becomes caught on a knot in a warp end. Second, there are those caused by rebounding shuttles. Third, there are those traceable to improper operation or adjustment of the feeler wires of the filling stop-motion.

Kinks due to the first of these causes are formed in the following manner. As the reed is pushing a pick up into the cloth, the filling catches on a knot in the warp yarn close to the fell of the cloth. The reed then pushes both yarn and knot into the cloth. If the strain on the warp end is not sufficient to break it, the knot springs away from the cloth as the reed moves backward, and leaves a loop of filling. As the next pick is inserted, and the reed comes forward again, another loop is formed, and the knot once more springs back when pressure of the reed is removed. This may continue until six or seven loops are formed, or until the warp knot is itself woven into the cloth. If in finishing these loops are cut, a hole results. If they are not cut, a small hole will still be present, and the kinks of filling will constitute an additional defect.

The position of the eccentric gear has an important bearing on elimination of kinks of this type. It controls the speed of the harnesses, and their speed, at the time the warp ends are passing each other, may often be the deciding factor. To prevent defects of this type, so set the harnesses that they will be moving at their highest speed when they have just passed each other and the reed is about 1 in. from the fell of the cloth. This fast motion will prevent knots from catching on to the filling.

Since the warp yarns are at this point in their slackest position, the speed will do little injury to them. Another good feature of this is that, with the eccentric so set, the slowest movement of the harnesses will come at the finish of the harness movement, when the yarns are strained more than at any other time.

False reeds help to prevent kinks of this type, as do double reeds. But correct adjustment of the eccentric is of greater assistance than anything else. Review of Chapter IV, titled Eccentric Movement, which appeared on page 102 of the June, 1938, issue of TEXTILE WORLD, is recommended.

REBOUNDING SHUTTLES are the second common cause of kinks in the filling. They may result from too much power on the loom or grease on the shuttles. The remedy in each of these cases is more or less obvious.

Sometimes, it is found that the kinks are caused by one shuttle only. In such instances, the trouble can usually be traced to the fact that the brushes in that shuttle are not working satisfactorily. A good way to insert brushes is to drill a hole, say about $\frac{1}{8}$ in. in diameter, through each side of the shuttles, at an angle of 45°. These holes should be so placed that when the brushes are inserted in them the brushes will press against the filling bobbin near its tip. The holes are then filled with sufficient bristles of the type used in hand brushes to make firm brushes. Small wooden pegs can be used to fasten the bristles firmly in position.

One brush should press lightly on the top of the bobbin in the shuttle, and the other on its underside. Which of the brushes should be on top, and which on bottom, depends on the direction in which the filling comes off the bobbin. The brushes must be arranged in such a manner that filling coming off the bobbin will not go toward the brushes, but rather will be moving away from them.

Hence, it must be remembered that, if at any time the direction of filling-yarn twist is changed, the brushes must likewise be changed. Also, if the filling is jack-wound, and some of the winders turn in one direction, while others turn in the opposite direction, the brushes must be changed whenever the wind changes, even though the yarn twist may not be reversed. Incidentally, in a case of this kind, the thing to do is to so set the jack-winders that they will all turn in the same direction. This is cheaper, quicker and more satisfactory than continual changing of shuttle brushes.

Feeler wires of filling stop-motions are the third major cause of filling kinks. Before doing anything to the stop-motion in an attempt to overcome this trouble, the loomfixer should first examine the loom carefully to make sure some other factor is not the real cause of the difficulty. For instance, if the power strap has dropped, thus giving the loom too much power, tampering with the stop-motion is not the remedy. Again, it may be found that only one shuttle is causing trouble. Obviously the thing to do in such a case is fix the shuttle, not the loom.

Many times, loomfixers overcome feeler-wire kinks by shortening the wires. This cannot be done on automatic looms, for it would result in a knock-off on the first (unthreaded) pick after each transfer. Another possibility is to reduce the amount of spring pressure on the feeler wires. However, spring pressure should not be meddled with too much, since it is by intelligent use of this pressure that efficient filling-stop-motion operation is obtained, without false stops at other times.

Some kinks are the fault of the yarn. For instance, the writer once encountered filling kinks which were eventually traced to the twisting operation. In this instance, a black end and a white end were being twisted together to form the filling. Both were hard-twist yarns in the singles. It happened that each time the twister was stopped one of the strands formed a loop. When the machine was again started, this defect was twisted into the ply yarn. Hence, no matter what loomfixing was resorted to or what brushes were inserted in the shuttles, the loops remained in the yarn and showed up in the cloth.

FREE FOR THE ASKING

Readers interested in literature reviewed on this page may secure copies by writing to Textile World, 330 West 42nd St., New York, giving their company connection, title of item desired, and date of issue in which it was reviewed.

Crush Resistance. Rohm & Haas Co., Inc. Booklet describes method of imparting crush-resistant features to fabrics, and gives data on products for the purpose.

Knitting Machines. Wildman Mfg. Co. Illustrated leaflet contains sample of fabric produced on Interlock knitting machine, and describes redesigned line of circular machines.

Vibration Control. Felters Co., Inc. 24-page booklet pictures and discusses a number of applications of vibration-reducing pads; included are several textile installations.

Dyes and Dyeing. Calco Chemical Co. Division, American Cyanamid Co. Bulletin No. 549 contains data on dyes and dyeing methods for both Nylon and acetate; included are data on fastness properties, and color changes from daylight to artificial light.

Roller Leather. Gill Leather Co. Pamphlet describes how company's products protect against spinning of poor yarn.

Worsted Spinning. Whitin Machine Works. Booklet describes company's Model BW large-package worsted spinning frame, and the advantages it makes possible.

Hosiery Knitting Machines. Karl Lieberknecht, Inc. Booklet describes and pictures, in 16 pages, full-fashioned leggers, footers, leg-foot, and single-unit hosiery machines.

Industrial Sites. Massachusetts Development & Industrial Commission. Elaborate booklet describes industrial advantages of Massachusetts, with relation to labor, taxation, markets, transportation, and other similar factors; contains a list of textile and other firms located in Massachusetts.

Pumps and Compressors. Pennsylvania Pump & Compressor Co. Bulletin 184 describes company's vacuum-pump and air-compressor units, as installed in textile and other plants.

Valves. Lunkenheimer Co. Catalog No. 78 contains data on and guide to selection of valves, boiler mountings, and lubricating devices according to pressures, temperatures, and service applications.

Chemicals. Glyco Products Co., Inc. 96-page new edition lists and describes glycol and glyceryl esters, emulsifying agents, special emulsions, synthetic waxes, synthetic resins, and specialties produced by this company.

Clothroom Equipment. Hermas Machine Co. March and April, 1940, issues of *Clothroom Spotlight* contain articles on removing hanging ends from face and selvage of fabrics, and brief data on the various machines produced by this company.

Factory Chimneys. Associated Factory Mutual Fire Insurance Companies. Bulletin No. 7.62 gives specifications for erection and repair of concrete and brick factory chimneys more than 50 ft. high.

Stereoscopic Microscopes. Spencer Lens Co. 20-page booklet describes company's line of stereoscopic microscopes, with magnification range from 6.3X to 144X.

Lubricants. Texas Co. Illustrated pamphlet describes company's Stazon lubricants, said to stay on bearing surfaces, supply full lubrication, and resist dripping, spattering, and creeping. Another leaflet discusses properties and advantages of company's Spindura spindle oil. A third covers knitting-machine and knitting-needle oils.

Cleaning Compounds. Oakite Products, Inc. 16-page booklet gives information on prevention of slime trouble, and on other air conditioning maintenance problems.

Scales. Howe Scale Co. Folder illustrates latest models of weighing machines, ranging from 1/64 oz. to 30 tons.

Fabric Washers. Rodney Hunt Machine Co. Catalog No. 340 covers complete line of washers for fine and coarse fabrics, in wood and stainless-steel models.

Hose. Mechanical Goods Division, United States Rubber Co. Hints on use, care, and maintenance of hose in various industrial services, together with dimensions and recommended working pressures for a variety of uses, are contained in 32-page publication M9333.

Health. National Association of Manufacturers, Committee on Healthful Working Conditions. Booklet points out dearth of competent medical attention in plants with less than 500 employees, emphasizes its importance, and outlines methods whereby these plants can secure advantages of good industrial health.

Belting. Gates Rubber Co. January, 1940, issue of *Industrial News* contains article on how company's products absorb shocks and eliminate spoilage on lace machinery.

Lighting Equipment. Acme Electric & Mfg. Co. 8-page bulletin No. 149 describes company's mercury-vapor transformers, explains characteristics of mercury-vapor lighting, and includes tables and charts helpful in determining necessary amount of light for various operations.

Plant Maintenance. Philip Carey Co. Booklet points out common causes of loss of heat, inefficiency of air-conditioning equipment, roofing failure, etc., and describes company's products for remedying these situations.

Transformers. Allis-Chalmers Mfg. Co. Bulletin B6043 describes company's transformers now available with Chlorextol, non-inflammable insulating liquid.

Lighting Fixture. Day-Brite Lighting, Inc. Leaflet F-18 describes company's industrial lighting fixture for two 40-watt fluorescent lamps; includes data on recommended spacing, light output, specifications, etc.

Sewing Machines. Singer Sewing Machine Co. Illustrated booklet describes and gives technical information on 400-W1 single-needle, lockstitch machine, with double rotary thread take-up.

Reeling Machines. Fidelity Machine Co. 6-page, illustrated leaflet describes self-contained, individually-driven skein reeling equipment, and points out its advantages.

Window Units. Rocky Mount Mfg. Co. Folder pictures and gives data on new type window units for mill-village and other houses; a feature is that no cords, straps, pulleys, weights, or balances are used.

Spools. Hubbard Spool Co. Folder illustrates and describes company's stainless-steel, electro-welded spools for dyeing and other textile processes.

Fluorescent Lighting Fixtures. Miller Co. Catalog Section A, in 32 pages, gives detailed information on use of fluorescent daylight lamps in textile mills. Includes photographs of equipment used in each textile process, and lighting fixture recommended; also diagrams showing proper height and spacing of fixtures for each operation, and amount of illumination necessary.

Fiber Conditioning. Texas Co. In this 32-page booklet are discussed reasons for fiber conditioning, equipment used, and company's products for this purpose; fiber tinting for identification purposes is also discussed.

Leather Belting. J. E. Rhoads & Sons. Illustrated leaflet describes advantages of company's belting used in connection with Rockwood short-center drives.

Water Coolers. Frigidaire Division, General Motors Sales Corp. Pamphlet describes and pictures company's water-cooling equipment for industrial and commercial services; featured are large capacity, low-cost operation, etc.

Pulleys. Vacuum Cup Metal Pulley Co., Leaflet describes line of vacuum-cup pulleys in solid and split types, from 2 to 72 in. in diameter; included are data on face widths, stock bores, prices, and terms.

Spray Painting. The De-Vilbiss Co. Booklet contains 144 questions frequently asked about spray painting and spray-painting equipment, together with answers to them; numerous drawings and diagrams are included.

Variable Speed Pulleys. Speedmaster Co. Folder describes company's variable-speed pulleys, outlines their outstanding features, and pictures some uses to which they may be put.

pH Tester. Wilkens-Anderson Co. Bulletin describes company's self-contained, direct reading, portable pH testers, for field or plant use.

NEWS OF THE MONTH

Cotton Stamp Experiment Starts

Down in Memphis, Tenn., the stage was set for the town's role as guinea pig in the cotton stamp experiment which went into effect there May 7. Latham White, regional Federal Surplus Commodities Corporation official organizing the set-up, reports that a group of 12 WPA workers have been preparing office record cards of families eligible to receive the cotton-purchasing stamps. Meetings have been held between FSC officials and local merchants and the latter have proved cooperative and enthusiastic about the plan. Everything points toward a successful launching of the program in the world's largest inland cotton market. Memphis merchants hope to increase retail sales of cotton goods to the tune of $150,000 annually through cooperation in this plan.

Col. C. C. Hanson, secretary to the Southern Commissioners of Agriculture, last month declared that the benefits which will result from placing cotton under the Orange and Blue Stamp Plan will be of immeasurable advantage to both the Agricultural and Industrial sections of the country.

In discussing the cotton disposal program to be put into effect by the Federal Surplus Commodities Corporation in Memphis, Tenn., he predicted that the trial test would prove so successful as to result in the extension of the program on a nation wide basis.

"It is to be remembered," he said, "that the value of the raw product, which enters in the manufacture of the cotton textiles which will be sold under the new Stamp Plan, is but a percentage of the value of the labor added in fabricating the raw cotton. This added labor value will prove of immense benefit, not alone to the textile industry, but to all branches of commerce, transportation and trade. The program is not alone sound economically, but also socially, fundamentally and factually."

May 15 Almost Here

Prefaced with committee reports, statements and counter-statements, the countrywide retail launching of Nylon hosiery on May 15 is at hand. Retailers criticise the omission of advertising allowances from Nylon prices. They are endeavoring to set up some counter-propaganda so that the consumer will not think all she has to do is to buy one pair of Nylon hosiery and live happily with it the rest of her life.

A committee of retailers, with the cooperation of the National Association of Hosiery Manufacturers, has prepared a statement to disabuse the consumer of any false notions on the indestructability of Nylon which among other things states "Like all sheer stockings, Nylon may snag and run; especial care is recommended in putting on and taking off." The retailers also recommend that Nylon at first be advertised in an educational rather than a promotional manner, and it is urged that Nylon be not presented in such a way as to unsell silk.

Lew Hahn, general manager of the National Retail Dry Goods Association in advising retailers said: "To introduce a short supply of Nylon in such a way as to kill the possibility of selling silk, will turn out to have been poor merchandising and wretched sales promotion." It has been stated that the amount of Nylon hosiery in retail hands on May 15 (about 100,000 doz. pairs) will not equal the volume of a normal single day's business in silk hosiery. Big stores may get no more than 25 dozen from any mill at the opening and many small stores may receive no deliveries. In some urban areas it has been decided not to advertise Nylon hosiery before June 1.

Hosiery jobbers are a bit worried on the Nylon situation because the price basis seems to make it impossible for them to buy from any source and sell to the retail trade at their necessary margin.

S.T.A. Meetings

The Eastern Carolina Division of the Southern Textile Association met in the textile building of North Carolina State College, Raleigh, N. C., April 27. Carding and spinning problems were discussed, and after the meeting a tour of the new textile building was conducted by students. J. B. Batten, Sr., is chairman of the division, and George Gilliam, is secretary.

The Northern North Carolina-Virginia Division is scheduled to meet May 11 at Greenboro, N. C., according to J. O. Thomas, secretary. W. M. McLaurine, secretary of the American Cotton Manufacturers Association, will address the group prior to the technical discussion. W. J. Jennings, overseer of carding and spinning, Minneola Mfg. Co., Gibsonville, N. C., is chairman.

The carding and spinning section of the South Carolina Division will meet May 25 at Greenville, S. C. W. W. Splawn, overseer of spinning, Mill No. 4, Kendall Co., Pelzer, S. C., will lead the discussion. Garland Simmons, superintendent of Drayton Mills, Spartanburg, S. C., is chairman.

The annual convention of the Southern Textile Association will take place at Blowing Rock on June 6 to 8.

The Piedmont Division met last month at Charlotte, N. C. and the Weavers' Section of the South Carolina Division met at Spartanburg. Details of these meetings will be reported in a later issue.

Miss Frieda Myers, chosen by the Union Chamber of Commerce as Queen of Gastonia's third annual cotton festival which will take place June 10-15. Miss Myers is the daughter of Mr. and Mrs. A. G. Myers of Gastonia. Mr. Myers is the receiver of Textiles, Inc., president of the Citizens National Bank of Gastonia, president of the North Carolina Cotton Manufacturers Association, and a director in the Southern Combed Yarn Spinners Association and the Cotton Textile Institute.

Rayon Style Notes

A rainproof golf jacket made of Crown-Tested spun-rayon fabric has been introduced by Brentwood Sportswear Mills, New York. The cloth is impregnated with rubber and is both waterproof and windproof.

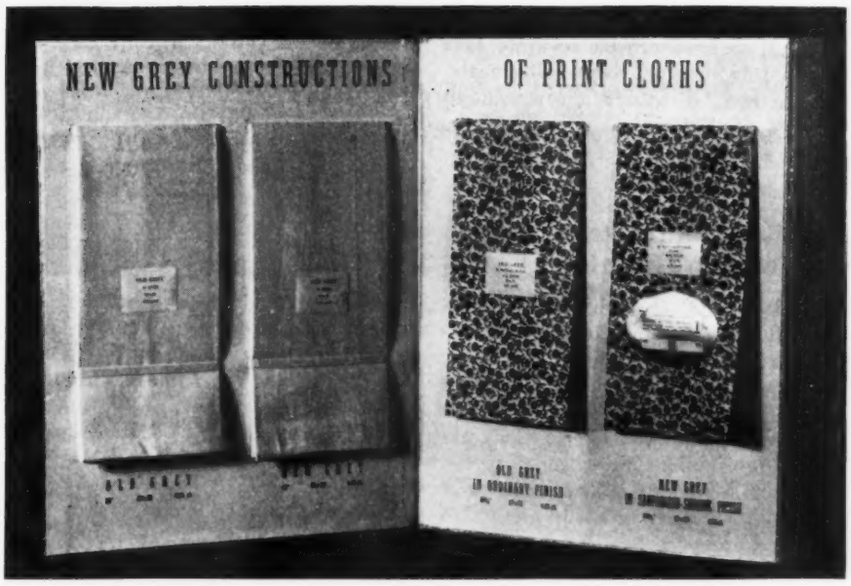
American Bemberg Corp. has produced a technicolor motion picture under the title "Aristocrats of Fashion" which shows a full line of summer fashions in fabrics of Bemberg rayon.

Sky Flight prints, comprising six patterns on seven basic shades of Crown-Tested print crepes, were launched at a fashion show at LaGuardia Airport, on May 1. That week was described as "Air Fashion Week", and air line hostesses acted as fashion commentators.

A new line of Futurama prints has been placed on the market by David Berlinger & Co., with patterns based upon the highly successful Futurama exhibit in the General Motors Building at the New York World's Fair.

American Bemberg Corp. presents in a new issue of "The Sketchbook", highlighted summer styles now shown by Fifth Avenue retailers in fabrics from that company's yarn.

United States Finishing Corp. is offering a new range of colors especially for use on spun rayon sportswear fabrics which are intended to give improved fastness of color for this use.



Because Sanforized shrinking of certain standard 39-in. print cloths often brought them to 34½ to 35 in. instead of the 35 to 36-in. figure which garment cutters find economical in their laying out of patterns, there has been investigation of the possibility of reconstructing certain of these former standards with the result that two new widths and counts have been worked out. Shown above is the old 39-in. 80 x 80 4-yd. fabric and the finished print (not Sanforized and shrunk) which has a width of 35¾ in. and counts 87 x 75. On the right of each of these items is the new suggested construction: a 40-in. 78 x 78 4-yd. print cloth and the resulting print which when Sanforized shrunk finishes to a width of 35¾ in. and to a count of 87 x 76. Similarly it is recommended that the 39-in. 68 x 72 print cloth be supplanted by a 40-in. 66 x 70 since the latter fabric when Sanforized shrunk finishes to the same width and count as the old gray goods finished without Sanforizing. It is expected that mills can make the newly recommended constructions at the same price as the previous standards.

Parker, Wilder & Co. Ended 120th Year

Parker, Wilder & Co., New York, is now observing the 120th anniversary of its founding. This textile sellinghouse was founded in Boston in 1820. Not until 1850 did it open an office in New York. The New York office became the chief office of the company in January, 1932. At least four of the Parker, Wilder & Co. mills have been selling their products through that firm for more than 50 years. These include the Gonic Mfg. Co., Talbot Mills, Cocheco Woolen Mfg. Co. and Ware Woolen Co. It is stated that the firm has been a member of the National Association of Wool Manufacturers since its beginning 75 years ago.

Celanese Output to Gain 25% This Year

According to the statement by Dr. Camille Dreyfus, president of the Celanese Corp. of America at the recent annual stockholders meeting, production by that company for 1940 will be about 25% greater than in 1939. This is as a result of additional productive facilities in plants at Cumberland, Md. and at Celco (Pearisburg), Va. Dr. Dreyfus also stated that Celanese expects to invest at least $7,000,000 this year in added capital expenditures both for further expansion and output facilities and for general improvements. Dr. Dreyfus spoke enthusiastically of the new strong Celanese yarn adding that it was the strongest synthetic textile known. The company expects to turn out some of this yarn this year.

Style Show Features Cotton's Versatility

Versatility of the newly styled cottons was dramatized in the extensive revue presented by Miss Catherine Cleveland, Consumer Consultant of the Cotton-Textile Institute, at the luncheon-bridge of the League of Women Voters, at the Wykagyl Country Club, New Rochelle, N. Y., several weeks ago.

A vivid collection of models for beach and sports wear designed by Florence Gainor featured rainbow seersuckers in dramatic checks, plaids and wallpaper stripes. Tremendous applause was registered for rainbow plaid seersucker pajamas for evenings at home now and for cabana wear later. These were worn over tomato red pique bra and shorts.

Men's wear grey and white striped seersucker was featured in a six piece ensemble—shirt, short, bra, slack, skirt, and jacket—a new trend offering many changes. Vivid accessories added color.

Boston Appraisers Have New Test for Wool Yield

The Bureau of Customs' new wool-testing laboratory at Boston was opened recently and its operations opened to inspection by wool importers, dealers and manufacturers. As duty is levied on clean content of wool, the appraisers require a basis for figuring when the imported wool is in the grease.

The new plant is the result of 2½ years research and experimentation by Treasury Department scientists to eliminate guesswork in establishing wool shrinkage. A new sampling device takes small portions from any part of a bale. The samples, given laboratory treatment, show the average "clean content" of any lot of wool. The sampling device consists of a steel tube with razor blades. The tube penetrates a bale, cutting a sample from any desired portion. This operation takes four to eight seconds. As many as 110 bales have been sampled in 70 minutes. A dry-cleaning solvent is used for scour-

ing tests on the samples and the results are said to have proved accurate to a fraction of one per cent. Under the old method of setting clean content much depended on the opinion of the expert who judged the samples.

Textile Credit Executives to Meet in Toronto

Credit executives of the textile industry will gather at the Royal York Hotel, Toronto, Canada, May 19 to 23 for the forty-fifth annual credit congress of the National Association of Credit Men. This year the Credit Congress will be international in scope since the membership of the Canadian Credit Men's Trust Association, Ltd., will also be active participants.

Two afternoon programs will be devoted entirely to individual industry meetings. Committee in charge of the textile industry program is composed of Nash S. Eldridge, J. B. Stevens & Co., New York, N. Y., chairman; Lloyd Vanbuskirk, Chipman-Holton Knitting Co., Ltd., Hamilton, Ontario; Ely Callaway, Callaway Mills, LaGrange, Ga., vice-chairmen.

Textiles Bought by Red Cross for War Relief

That cotton and wool products are playing important parts in minimizing the sufferings consequent to hostilities in Europe is evident from a glance at a list of American Red Cross relief supplies that were purchased from the outbreak of war up to April 1. Among products listed are the following: 120,000 blankets, 131,000 lb. of wool yarn for knitting into clothing, 1,500,000 yd. of gauze for surgical dressings, 276,000 yd. of bed sheeting, 105,000 suits of heavy knitted underwear, 92,000 lb. of sterilized, absorbent cotton for medical purposes, and 25 hospital tents, each of 50-bed capacity.

American Red Cross relief operations in Europe are under the supervision of a commission of two men with offices in Geneva, James T. Nicholson, from National Headquarters in Washington, and Wayne Chatfield-Taylor, former assistant secretary of the Treasury.

A Business Report to Business Employees

Aberle, Inc., Philadelphia hosiery manufacturer, has issued its first annual business report to employees, "to develop a better understanding of all phases of the business among employees in the mill." The report shows that out of every dollar the company receives from sales 33c was paid out in wages. This figure is 14c (57%) higher than the average for all American industry, says the report. The net profit to the company was less than 1% of the annual receipts, with city, state and federal taxes three times greater than the company's profit. This report is a step in a planned program of improving relations and understanding with employees and with the public.

Mayfield Towel Vendor operates with penny through coin receptacle, delivering a fresh, absorbent, cotton towel through a window to the customer. The potential use for the machine is almost unlimited and can be profitably employed wherever towels are needed for public service, as hotel wash rooms, bus and transportation stations, department store rest rooms, public buildings, etc. It is fair to expect the landlord of any building where the machines can be used to allow the machine to be placed in the wash room without a rental charge; the revenue accruing entirely to the one who owns and services the vendor. The machine offers a new opportunity for the linen supply trade to reclaim a large field recently serviced by paper. The vendor is manufactured by Miller Steel Products Co. and Briggs-Shaffner Co., both of Winston-Salem, N. C.; distributors are Barnhardt, Inc., Concord, N. C.

Miss Beulah Brown, captain of the Enka Rayonettes, receiving the trophy for the Class A girls' championship at the Southern Basketball Tournament from the hands of William P. Jacobs, executive vice president of the Cotton Manufacturers Association of South Carolina. This team is composed of employees of the American Enka Corp. At the right stands Horace Whitmire of the Brandon Corp., Greenville, director of the tournament.

Flour Sacks for Garments

Something new in flour sacks has been inaugurated by the Statesville (N. C.) Flour Co. Its products are being put out in bright colored printcloth sacks in floral, striped and geometric patterns. Each 100 lb. sack contains 1½ yd. of material which, after washing, can be made into apron for mama or dress for toddler. Two sacks of matching patterns will make an adult's dress, or a pair of window curtains.

P. S. This innovation also brightens up the appearance of the commissary.

Atlantic Cotton Shippers Meet

Donald Comer, chairman of the Board of Avondale Mills, addressed the 17th annual convention of the Atlantic Cotton Shippers Association in Atlanta, Ga., April 13. He stressed the fact that if wages were raised more cotton could

Miss Nettie Grace Cameron, Polktown, dressed in an attractive blue and white checked cotton dress, was grand prize winner in the 13th annual style show held at North Carolina State College on April 25. Miss Cameron, a junior at Flora Macdonald College, Red Springs, is the second student of that college to win the grand prize since the style show was inaugurated in 1928. Miss Cameron's fabric was designed and woven by G. E. Fry and J. B. Tatum.

be used, for "by increasing the purchasing power of the South, the entire nation will be benefited," he said.

Oscar Johnston, president of the National Cotton Council, spoke on the need for advertising cotton, saying that foreign markets must be found for at least 7 million bales of American cotton, annually, if consumption is to be balanced with production.

Use Coker's Seed for Crop for Cotton-Picking Contest

Coker's Pedigreed Cotton Seed will be used to plant the prize crop in the National Cotton-Picking Contest to be held in Blytheville, Ark., Sept. 23 and 24. Roscoe Crafton, president of the National Cotton Picking Association, conferred in Blytheville with J. F. Clyburn, general manager of the Coker Pedigreed Seed Co., of Hartsville, S. C. The seed company agreed to furnish 125 bushels of high quality delinted seed and also to pay a substantial sum of money into the Association's general-fund to help defer expenses on the contest.

Textile and Fiber Exports Up 21%

Exports of cotton and other textile fibers, and manufactures thereof, from the United States during the calendar year 1939 were reported by the Department of Commerce as valued at $357,938,000 compared with $322,941,000 in 1938, an increase of almost 11%. The cotton exports bulked largest in these total figures, being $239,717,000 in 1939 and $224,293,000 in 1938. All other products in the group, excluding cotton linters, totalled $114,478,000 in 1939 against $94,294,000 in 1938, a 21% increase. This latter group consists mostly of textile manufactures.

Philadelphia Textile Alumni Meet

Forty former students of Philadelphia Textile School met April 4 in New York and formed the New York Club of Philadelphia Textile School. Representatives were in attendance from classes as early as 1887, and as late as 1939. Milton Schmidt, of E. F. Timme & Son, was elected president; Dr. George E. Linton, of Central Needle Trades High School, vice-president; Howard P. Galloway, of TEXTILE WORLD, secretary; and Benjamin Prager, of L. Bachman & Co., treasurer.

Chattanooga Outing Set for May 23 and 24

May 23 and 24 have been selected for the fifteenth annual spring outing and golf tournament of the Chattanooga Yarn Association to be held at Lookout Mountain Hotel and the rolling Fairyland Club Course. E. Dudley Bryan, president of the association, announces that trapshooting, swimming, badminton and other recreation had been arranged in addition to the golf tournament.

The Yarn Association was recently organized to succeed the old Chattanooga Textile Group which formerly sponsored the outing and tournament.

TEXTILE CALENDAR

Cotton Manufacturers Association of South Carolina, annual meeting, Cashiers, S. C., May 24 and 25, 1940.

Fourteenth Annual Outing, Philadelphia Textile Manufacturers Association, Manufacturers Golf and Country Club, Oreland, Pa., June 19, 1940.

American Society for Testing Materials, annual meeting, Atlantic City, N. J., June 24 to 28, 1940.

National Safety Congress, Stevens Hotel, Chicago, Oct. 7 to 11, 1940.

American Association of Textile Chemists and Colorists, 20th annual meeting, Hotel Commodore, New York, Oct. 18 and 19, 1940.

Fourteenth National Exposition of Power and Mechanical Engineering, Grand Central Palace, New York, Dec. 2 to 7, 1940.

Southern Textile Exposition, Textile Hall, Greenville, S. C., March 31-April 5, 1941.

Cotton Film in Demand

Producers and distributors of the new sound film "The Threads of a Nation," dramatizing cotton manufacture, report special interest on the part of local movie theatre managers in the booking of the picture during this year's observance of National Cotton Week, May 17 to 25.

Trophy awarded by the Cotton Manufacturers Association of Georgia to the Culloden One-Variety Cotton Improvement Association for having achieved the best results in the 1939 Cotton Improvement Program. Shown in the picture is Miss Jane Cagle, secretary to T. M. Forbes, secretary of the association.

"America's finest fabrics owe much of their perfection to the perfect quality of America's finest bobbins."

CLOVERLEAF BOBBINS

As a direct result of the super-strength, uniform quality, perfect balance and *complete suitability* of each type of Clover Leaf Bobbin, America's leading manufacturers who throw their own yarn are achieving (1) higher speeds, (2) greater precision, (3) better fabrics, (4) bigger profits . . . Ask *your* throwster.

CLOVER LEAF MANUFACTURING CO.
HONESDALE, PENNA. : : SINCE 1899
W. A. Kennedy, Dillworth Station, Charlotte, North Carolina
Dana R. Crawford, Box 176, Providence, Rhode Island

"A Good Way of Life"

"You have heard about cotton mills . . . Let me tell you about The Bibb," says a happy-looking working man in an advertisement run recently by the Bibb Mfg. Co. in *The Saturday Evening Post* and *Time*. And this man proceeds to tell the public what The Bibb means to 25,000 people: a good way of life—and work . . . clean respectable homes . . . modern schools and recreational facilities . . . first-class hospitals and churches . . . medical attention and health service.

The advertising is an ideal type of public relations work—and one very much needed in an industry whose industrial relations set-up is as much misunderstood as is that of the textile industry.

Cotton Associations Elect

Annual conventions and elections of officers were held recently by Atlantic Cotton Association and Texas Cotton Association. The former, holding its 17th annual meeting at Atlanta, Ga., elected T. W. Crews, of Matthews, Crews, & Lucas, Spartanburg, S. C., president; Fred Cockrell, of Cockrell & Co., vice-president; F. G. Hill, of Century & Hill, treasurer; J. M. Gloer, Jr., vice-president and secretary; and Sam C. Heard, traffic manager. The latter group, in Galveston, Texas, for its 29th annual meeting, elected A. Strarke Taylor, of Dallas, president; E. Day, of Waco, vice-president; and L. T. Murray, also of Waco, secretary-treasurer.

Slit Pliofilm For Textiles

Arrangements have been made for marketing tensilized Pliofilm, in continuous-ribbon form, to textile mills, according to Goodyear Tire and Rubber Co., Akron, Ohio, producers of the transparent synthetic wrapping material. Development of a method of imparting extra strength by stretching Pliofilm during manufacture is said to have made possible its use in woven fabrics for table cloths, mats, handbags, belts, hats, shoes, bands, and other similar items.

For these purposes, the Pliofilm is supplied in all colors, and in widths ranging from 4 in. to ½ in., with consideration being given to production in ⅛- and ¼-in. lengths. In use, the ribbon-like strands are crushed lengthwise, rather than rolled; this is said to give interesting textural effects to fabrics containing them.

Textile Fraternities Convene

Three national textile fraternities held annual conventions during the week end of April 12-14. Largest group to assemble was Phi Psi, which met in Philadelphia, with an attendance of 185. Featured was an exhibition of products of members, with 34 textile and allied organizations represented. First prize was awarded to the National Association of Wool Manufacturers, for its display of "American Master Piece" fabrics. Second award was to Carl Stohn, Inc.; and third place went to Rohm & Haas, Inc. Prizes for student exhibits were awarded to Philadelphia Textile School and Alabama Polytechnic Institute.

Officers elected at the annual business meeting include J. Ellsworth Fite, president; A. K. Haynes, vice-president; Donald L. Crawford, secretary; and A. C. Stohn, treasurer. At the banquet which closed the convention, speakers were Col. Millard D. Brown, president of Continental Mills, Inc., who was made an honorary member of the fraternity; Alban Eavenson, of Eavenson & Levering Co.; M. E. Heard, re-

cently named dean of Philadelphia Textile School; and Rev. Philip Steinmetz.

Delta Kappa Phi also met at Philadelphia, with about 50 members in attendance. The following officers were elected: R. Allan Watson, consul; Bradford Hull, pro-consul; William B. Williamson, custodian; and A. W. France, annotator. Speakers at the banquet which brought the convention to a close were R. Allan Watson, Stanley Hart, Richard S. Cox, B. C. Algeo, and E. W. France, retiring director of Philadelphia Textile School. Presentations were made to Messrs. France and Algeo.

Sigma Phi Tau celebrated its silver anniversary in New York, with a banquet and a dinner-dance. Officers for 1940 are Joseph Layman, councillor; Bernard Sumberg, vice-councillor; Robert Birnbaum, exchequer; and Mathew Birnbaum, scribe.

Wool-Like Nylon Fiber Patented

He gave Nylon a permanent wave and got a wool-like fiber. On April 23, John Blanchard Miles Jr. a du Pont scientist, patented mechanical methods for crimping a fiber derived from the same basic compound as Nylon, producing a wool-like yarn. The patent is assigned to the company. The material, they say, may approach or even equal wool in crimp retentivity and heat insulation properties. Four to ten crimps per inch can be obtained with the method patented.

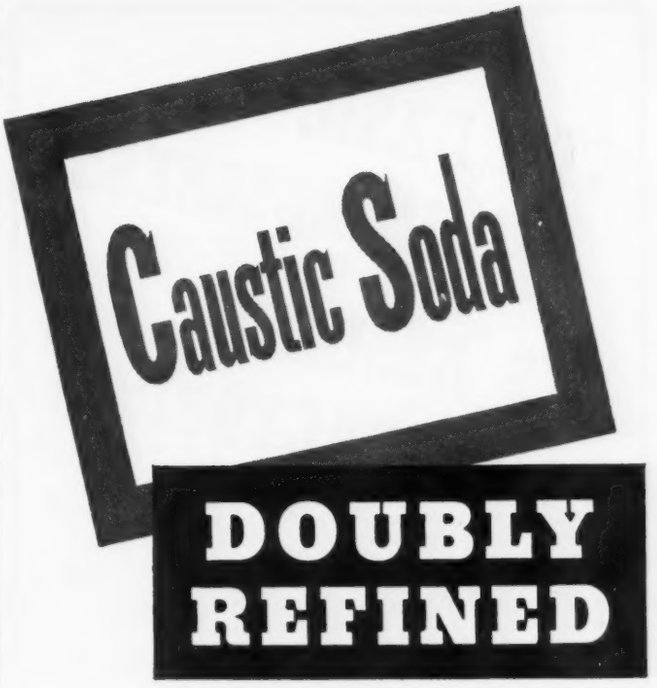
Research to Start on Sizing Spun Rayon

Active research on warp sizing of spun rayon, with F. Gordon Cobb as research associate, will be started at State Textile School, Raleigh, N. C., just as soon as a few remaining details of the program are decided and a miniature slasher for experimental work is delivered, according to an announcement made recently by the U. S. Institute for Textile Research. At an open conference, held at the school on April 20, W. D. Appel, chairman of the Institute's Research Council and chief, Textile Section, National Bureau of Standards, described the Institute's cooperative research method and its value to cooperators, and gave an outline history of the warp-sizing program to date. Mr. Cobb presented a list of questions for discussion at the afternoon session which were supplementary to the tentative research program. Following luncheon there was a tour of inspection of the rooms of the new building that will be available for this research work. Discussion at the afternoon session was led by Dr. W. E. Yelland and Harold M. Chase. Both speakers outlined the various factors to be studied as given in the tentative program. It was indicated by the interest shown in spun acetate and blends of that fiber with cotton and wool that the program should be expanded to cover such yarns.

Laces Hit By Reciprocal Trade Agreement

Despite a superficially good lace season, the domestic lace manufacturing industry is not prospering, according to H. R. Giblin, executive secretary of the American Lace Manufacturers Association. Under the reciprocal trade agreement with France duties on French laces were in some cases reduced as much as 45%. Similar weaving machines are used in both countries, but as labor constitutes the major part of lace costs, the high-wage domestic production is at a disadvantage in meeting low-wage foreign competition.

At present val laces are in good demand for blouse, neckwear, underwear and dress purposes. Silk laces are being more widely used for party frocks and street wear, while cotton laces are finding a broader market in new types of street wear dresses.



● You will find the caustic soda made by Pennsylvania Salt Manufacturing Company so well refined that it meets your most exacting requirements for mercerizing or other textile processes.

A double refining process makes this caustic soda low in salt content, low in carbonates, and extremely low in iron. In addition, Pennsylvania Salt Manufacturing Company maintains the most rigid quality-control to safeguard the uniformity of the product, using, among other methods, that of spectrographic analysis — one of the most sensitive and precise known to science.

This caustic soda is supplied in aqueous solution in 8000-gallon tank cars, as well as in solid, flake, or ground form in drums. Our technical staff will gladly help with all problems of handling.

Pennsylvania Salt Manufacturing Company, Widener Building, Philadelphia, Pa. —New York • Chicago • St. Louis • Pittsburgh • Tacoma • Wyandotte.

Other Pennsylvania Salt Chemical Products for the Textile Industry

Hydrogen Peroxide	Sodium Hypochlorite
Soda Ash	Carbon Bisulphide
Sulphuric Acid	Ammonium Persulphate
Hydrochloric Acid	Anhydrous and Aqua Ammonia

PENNSYLVANIA SALT
MANUFACTURING COMPANY
Chemicals

IT'S BASIC IN BUSINESS!

IT'S ASSURED BY FACTORING!

We refer, of course, to adequate working capital—a fundamental requirement in business. Without it there can be no sustained growth or progress. With it there is facility in taking advantage of each new day's opportunities. Firms that are factored are always assured the working capital they require. In addition, they are protected against credit losses, and are freed from the burden of financing, credit checking, billing, collections. Why not investigate? We will be glad to give you the complete story, without any obligation on your part. Write us today.

MEINHARD, GREEFF

AND COMPANY, INCORPORATED

Factoring Founded on Service

51 MADISON AVENUE • NEW YORK CITY

Cotton Goods Quiet

Cotton goods were quiet at the start of May following some gain in strength through April. Sales of 4 yard 80 squares were recorded at 6⅝¢ from second hands after the market had firmed to 6¾ to 6⅞¢ from mills.

Firmer Underlying Situation in Wool

The fact that the British Wool Control Board cancelled the second allotment of Australian wool for the United States may be regarded as of bullish significance, despite the fact that it had scant effect on the market when announced last month. Traders had already heavily invested in Cape wools and supplies for the immediate future seem adequate. For the longer future, however, with the pace of the European war accelerating, sources of wool supply may be further restricted. Wool tops in New York went to $1.02 in late April after closing March at 98½¢, but were back to 99¢, May 6.

Wool Goods Markets Show Firmer Tone

Although buyers are still slow to place business on fall wool goods lines, and most mills continue to operate on short time, there is evidence of greater firmness, and mill agents believe that price weakness has been corrected. The feeling is beginning to spread that buyers who hold off too long may be caught. Certainly the available manufacturing period for fall has been already cut down. Retail distribution at the advanced prices has been going forward at a moderate rate.

How Japs Try to Check Raw Silk Decline

Whereas a year ago Japanese government was planning to control speculation and set limits to prevent the runaway tendency in the rising raw silk market, the situation is now reversed and efforts are reported on the part of the Japanese authorities to curb the decline. Although stabilization has been the desired thing for many months, it does not seem that any real progress in that direction has yet been made. A reasonable approach to that problem has been made by Paolino Gerli with the suggestion that a system could be set up to allow for high prices of silk in the home market of Japan while a stabilized price might be obtained in this country through the cooperation of the parties at interest and by the carrying of a fairly large stock in New York. Prices of silk are about what they were a year ago at this time with Crack XX 78% around $2.60. As silk goes down there is a little more interest from the weaving trade and silks may return to greater use in women's underwear.

Rayon Production Maintained

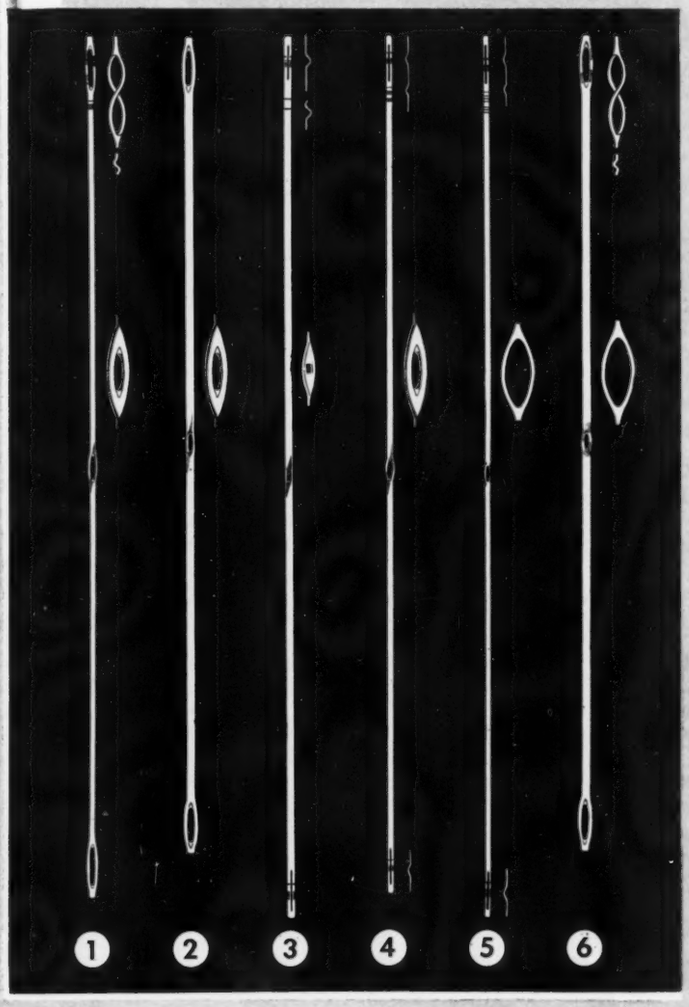
Delivery of rayon yarn from first hands for the first quarter of 1940 is reported to have exceeded 90,000,000 lb., an increase of about 14% over the same period in 1939. The trade believes that the good production rate continued through April and that it may continue through the current month despite the usual let-up seen in late spring of recent years. Accumulation of somewhat increased stocks, provided they were well diversified, would not handicap sellers, observers believe, and might prove a useful cushion.

There has been a fairly active market in rayon fabrics, featuring especially pigment taffetas, twills and serges. There has been an expanding inquiry for satins for fall, and spun-rayon fabrics have been in good demand. In the

The Eye FOR THE Yarn

QUALITY LOOM HARNESS EQUIPMENT

Stehedco



1. Cotton
2. Wool
3. Cellophane
4. Rayon
5. Silk
6. Worsted

It must be designed for the particular construction of a fabric regardless of texture.

It must be shaped, turned and polished to permit absolutely free travel of the warp ends through the eye, preventing chafing, jagging or obstruction of the warp threads.

Only years and years of close study and specializing, backed by the finest equipment science and money can produce, can possibly produce such a heddle—the heddle that *you* will find the most profitable.

Put your heddle problems and worries up to our field representatives.

Steel Heddle Mfg. Co.

STEHEDCO HEDDLES · REEDS · FRAMES AND HARNESS ACCESSORIES

2100 W. ALLEGHENY AVE., PHILADELPHIA, PA.

BRANCH OFFICES ALL OVER THE WORLD

TOO OFTEN, the word "obsolete" is considered as applying to machines exclusively.

The fact is, of course, *men become obsolete too*—in their ability to secure maximum results from complex modern plant equipment, in their training to keep pace with modern methods.

Industry is fast coming to recognize that obsolete manpower is as costly as obsolete horsepower. Hence the increasing emphasis on apprentice- and employee-training programs.

The International Correspondence Schools, established in 1891, have current employee-training agreements with more than 2000 progressive business and industrial concerns, large and small.

To each of these organizations, I.C.S. (after a thorough analysis of that concern's needs) provides a "tailor-made" training program, designed to provide a permanent source of soundly trained, *modernized manpower*—familiar with that concern's methods, equipment, organization, products, customer-requirements and policies. In short, manpower with the *knowledge* and *background* to make it more efficient, productive and profitable than otherwise possible.

If you would like complete information on this important phase of I.C.S. activity, mail the attached coupon (which implies no obligation, of course).

International Correspondence Schools

SCRANTON, PENNSYLVANIA

INTERNATIONAL CORRESPONDENCE SCHOOLS
Box 9344, Scranton, Penna.

Please send full information on I.C.S. group training activities to:

Name _____ Position _____

Company _____

Address _____

sportswear field spun-rayon has made a tremendous impression and scarcity is expected on the primary market before the end of the current retail season.

Full-Fashioned Hosiery Still a Puzzle

Following the price cut of late March in full-fashioned silk hosiery, the market failed to respond and the backlog of business is still very small. Mill curtailment has been severe, and consequently stocks are probably not accumulating unduly. Several houses have guaranteed their price lists to June 30. Apparently retail distribution to the consumer has been unusually sluggish, and some blame this upon the consumer's holding off till May 15 to see what Nylon hosiery may be.

Seamless hosiery runs along at a fairly brisk rate with many of the seasonal novelties in slacks, anklets, crew socks, etc., well sold.

Underwear Business Normal

Underwear mills continue to receive a normal run of business despite uncertainties in other fields. A number of mills are taking advantage of the possibilities created by the Father's Day promotion. The day in question is celebrated June 16. Shipments from mills for the first quarter of 1940 are said to be considerably in advance of figures for the same period a year ago.

Outerwear Makes Progress

Business in knitted outerwear continues seasonably good with an unusual variety of novelties going into retail hands for spring and summer. Bathing suit promotion connected with "Swim for Health Week" is moving forward. That week has been set for June 24 to 29. The knitted outerwear industry is watching the wage-hour situation closely and is counting upon the hearing on May 2 to remove some of the handicaps associated with the matter of learners. Knitted wool costumes for women are improving their place in the spring and summer trade due to their suitability for traveling and the effective styling the industry is now offering.

This and That

Nylon will shortly be available in Canada from the Nylon Department of Canadian Industries, Ltd. It is said the yarn will cost about 30% more in Canada than in the United States owing to the exchange rate and import duty.

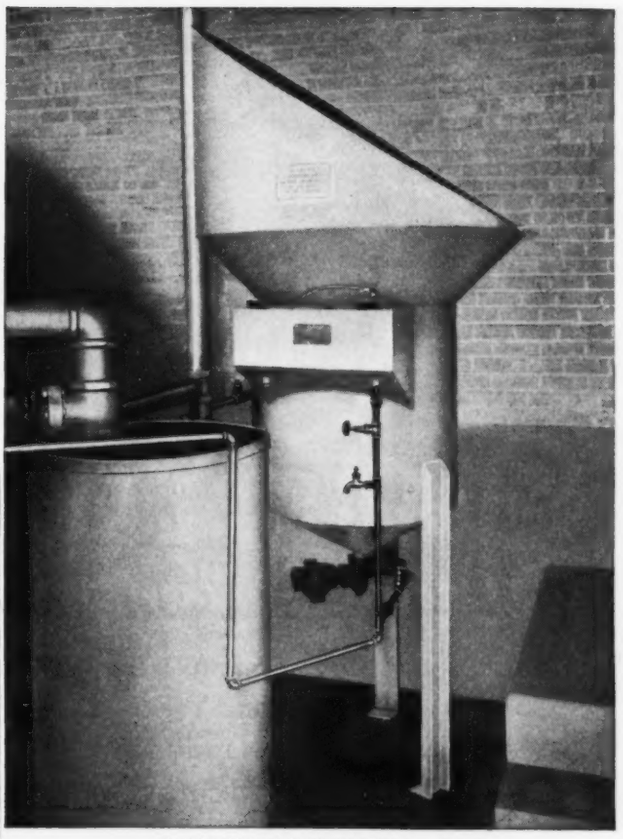
Rayon Yarn Credit Association, Inc., is the new name adopted by the former Silk & Rayon Credit Association, since it more accurately reflects its activities and representation. The association was formed in 1924 and includes among its members practically all producers, as well as the largest distributors, of rayon yarn.

Advertising grants by yarn companies have been scrutinized lately by the Federal Trade Commission in connection with work done to maintain the provisions of the Robinson-Patman act. That act requires that where advertising allowances are granted, they must be on a proportionately equal basis to competitive buyers.

Another silk growing enthusiast is reported from West Palm Beach, Fla. Work is being sponsored by Mrs. Frank J. Lewis of Chicago and Palm Beach, and it is under the direction of Dr. Ludwig Hartootlian, sericulturist. It is said that 5,000 small white mulberry trees are now growing and that 10,000 more will be set out this year.

Merrimack Co. will stage an elaborate fashion show of fall and winter styles for women and children in the Grand Ballroom of the Hotel Plaza, New York, May 23. Many

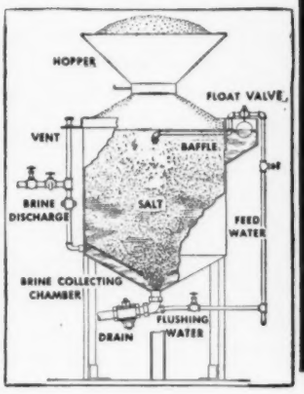
More level dyeing at startling savings with The LIXATE Process for making brine



FAIRY SILK MILLS, Shillington, Pa.

The Lixate installation illustrated is used in the production of the nationally known line of Fairy silk underwear for women—luxurious and high in quality. One added feature of Lixate Brine is that dyers report that goods have a softer feeling. The harsh handle noted sometimes with other methods is eliminated.

DYERS OF SILK, cotton, rayon, wool and unions in many mills—in open tanks or pressure machines—are now using Lixate Brine for exhausting, assisting or "salting out" colors in the dye bath. Dyeing is more level because the exhausting agent is introduced in liquid form. It is immediately distributed throughout the dye bath—there can be no accumulations of solid material to streak fabrics or to make stains.



These better results are secured with startling savings, of which the first is in material costs. Lixate Brine is made from International's Retsof, Detroit or Avery brands of Rock Salt, at a lower cost than any other alkaline exhausting agent. The Lixate Process makes these 4 major savings:

1. Lower cost for handling salt.
2. No labor cost for mixing brine.
3. Lower cost for distributing brine instead of dry salt throughout the plant.
4. Saving of 10% to 20% in amount of salt required.

See in this cross-section diagram how simple the Lixate operation is. Salt stored in a hopper flows by gravity to the Lixator below. Water enters through a spray nozzle at the top, dissolves the salt without agitation and becomes fully saturated brine. This brine is self-filtered and is crystal clear. It then rises in a collecting chamber to a discharge pipe and flows to a storage tank.

Look into the possibilities of using Lixate Brine for dyeing as well as for regenerating a zeolite water softener. You can get better results at lower cost with brine that is crystal clear, bacteriologically clean and chemically pure even beyond requirements for use in foods. Write for full information today.

• SALT FOR EVERY PURPOSE

International Salt Company, Incorporated, produces every type and grade of evaporated salt and Rock Salt used in industry, the home or on the farm. From its long experience, it has accumulated a store of knowledge on the uses of salt and salt brine. If you have any salt problem, you are invited to submit it to The Research Department of International Salt Company, Incorporated, without cost or obligation.

• WRITE FOR THIS BOOK

A copy of the Lixate Book will be sent free on request. It will show you pictures of installations in many industries. It also contains valuable technical information about salt brine. If you prefer, ask to have a Lixate Engineer call and show you how you can make substantial savings in your own operations with The Lixate Process.

The LIXATE Process
REG. U. S. PAT. OFF.
FOR MAKING BRINE

INTERNATIONAL SALT COMPANY, INC., Scranton, Pa., New York, N. Y.

SALES OFFICES: *Buffalo, New York • Philadelphia, Pennsylvania • Boston, Massachusetts • Baltimore, Maryland • Pittsburgh, Pennsylvania Newark, New Jersey • New York, New York • Richmond, Virginia • New Orleans, Louisiana • Cincinnati, Ohio • St. Louis, Missouri*

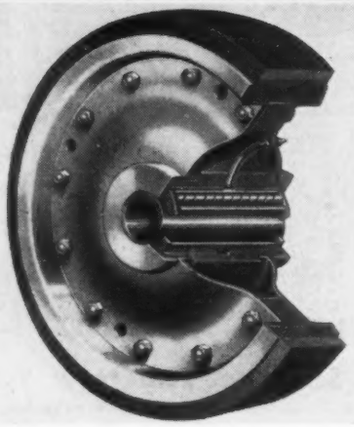
DARNELL
Casters & Wheels

Durable, precision-built Darnell Casters and Wheels assure the easy handling of heavy loads – savings in floor and equipment wear soon pay for their cost.

All Darnell Casters feature a Double Ball-Bearing Swivel – all wearing parts are carbonized and hardened.

It will pay you to learn why Industry prefers Darnell Casters and Wheels – They "keep turning and earning."

DARNELL CORPORATION, LTD.
BOX 4027, STA. B, LONG BEACH, CALIF.
JC N. CLINTON, CHICAGO – 24 E. 22nd, NEW YORK
DARNELL CORP. OF CANADA, LTD., TORONTO, ONT., CAN.



famous fashion designers have cooperated to lend authority and interest to this event.

Bureau of Plant Industry of the Department of Agriculture has announced a new market which may consume 50,000,000 sq. yd. of 90-in. 64 squares. This market results from the necessity of treating tobacco seed beds with effective fumigation in order to check the blue-mould plant disease. The method of treatment advocated by the Bureau involves covering the seed beds with a good grade of unbleached sheeting to retain gas used to kill the mould.

Baltimore Association of Commerce recently honored at dinner a number of local firms which had been in business for more than 100 years. These included such textile firms as the Mount Vernon-Woodberry Mills, W. J. Dickey & Sons, William B. Hooper & Sons Co. and Woodward, Baldwin & Co.

Three synthetic fibers said to have been developed after several years of research by Dr. Minoru Nakamato, of the Muto Research Institute of Kanegafuchi Spinning Co., Japan, have been announced recently. They are Kanebian 60, similar to Nylon; Kanepron 60, made from soy bean protein and viscose; and Kaneralia 60, made from acetylene and pulp from reeds.

At a meeting of the New York Section A.A.T.C.C., held April 26, at Rochelle Park, N. J., Dr. M. C. Teague, director, New Products Department, U. S. Rubber Co., spoke on "Some Recent Fiber-Latex Developments." W. F. Uhlig, president, Color Analysts, Inc., demonstrated the Analyte, a recently developed color-matching lamp.

American Association of Technologists, at a meeting held May 1 in New York, was addressed by F. Bonnet, of American Viscose Co., on "Some New Textile Fibers." Following Dr. Bonnet's talk, a discussion was held, led by A. L. Brassell, United States Testing Co., and Erb Ditton, Gotham Hosiery Co.

Raw Cotton Notes

A Cotton Research Congress will be held at Waco, Texas, May 21 and 22, under the auspices of the research section of the State-Wide Cotton Committee of Texas, the chairman of which is Dr. A. B. Conner, director of the Texas Agricultural Experiment Station, College Station, Texas.

* * *

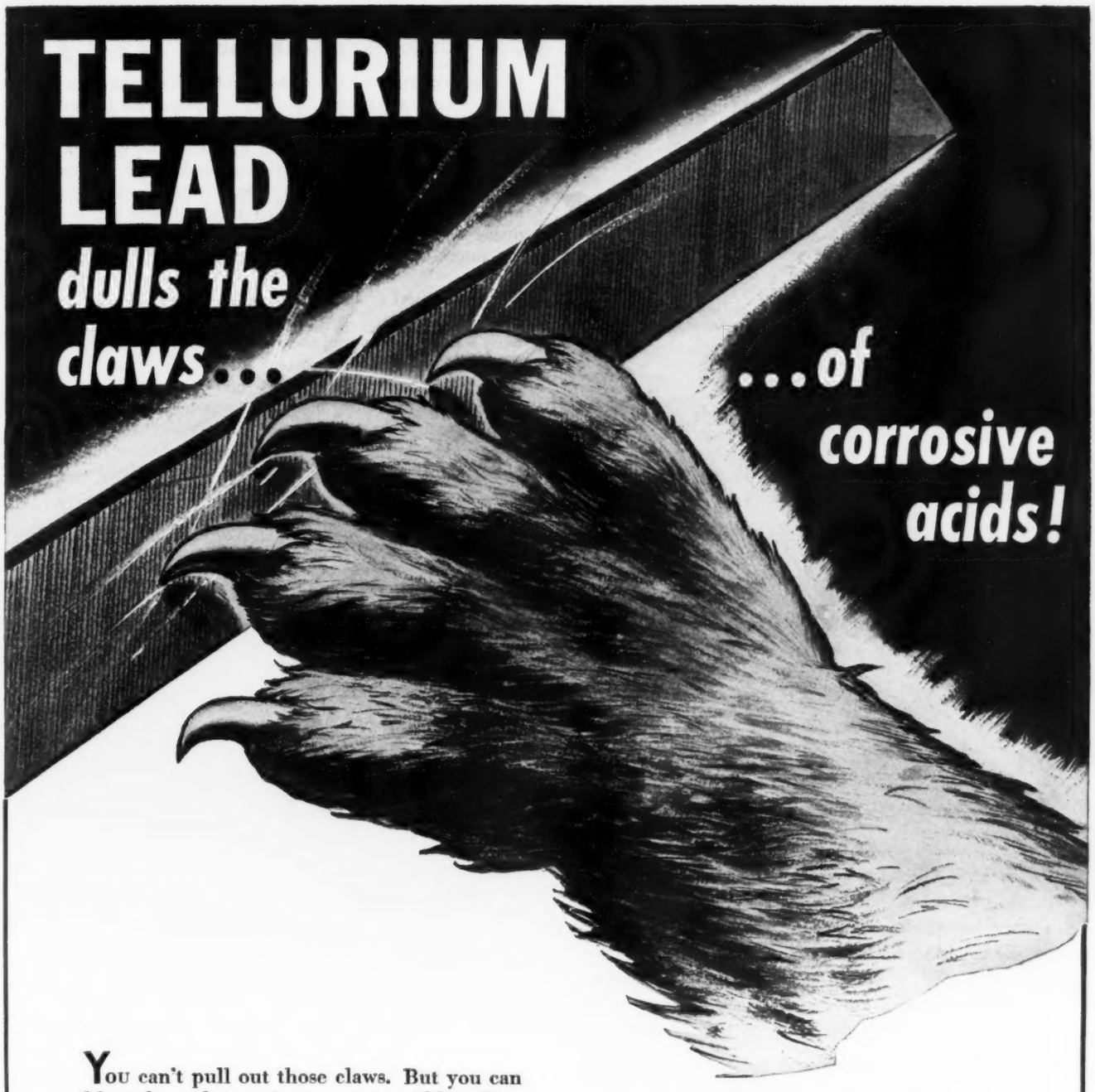
Senator McKellar, Democrat of Tennessee, took the stump against Federal legislation authorizing payment of $4,261,768 to 12 cotton co-operative marketing associations, with the statement that it was "nothing but stealing from the American Government."

The legislation dates back to 1929-30 attempts of the old Federal Farm Board to peg cotton prices by a loan of 16¢ per pound. Many State cooperative marketing organizations of that time failed while cooperating in this price-pegging effort. The pending bill would repay old claims from these operations. Senators Smith, Bankhead and Ellender stated that McKellar's charges had been investigated and found to be without proof.

* * *

Charging that the Commodity Credit Corp's. practice of swapping its Government-owned low-grade cotton to shippers for high-grade cotton of the 1939 crop has caused a loss of from five to seven million dollars to farmers, the Louisiana Cotton Cooperative Association denounced the plan at its annual meeting in New Orleans last month.

The resolution followed an announcement by the CCC that it has accepted proposals from 34 cotton firms to exchange an additional 37,120 bales of low-grade short-staple, Government-owned cotton for high-grade, long-staple, privately-owned cotton, making the total to date 160,595 bales.



You can't pull out those claws. But you can blunt them—by turning over your acid-handling jobs to Tellurium Lead.

A lead with an enviable success story. In our files are user reports from many different industries. Telling how Tellurium Lead has prolonged the life of equipment. Telling how it has reduced shut-downs for repairs. Telling of longer service even when the sulfuric acid was heated to a temperature very close to the melting point of the metal.

Another highly important property of Tellurium Lead is this: *It toughens under stress.* When rolled, stretched or hammered, it actually becomes stronger. As a result, turnover points and joints are less subject to cracking. Furthermore, where vibration occurs, this capacity to develop latent strength minimizes buckling and creeping. It also gives Tellurium Lead improved resistance to fracture due to repeated heat changes.

Tellurium Lead of our manufacture is time-tested St. Joe chemical lead alloyed with a small quantity of tellurium. It gives the advantages of this well-known chemical lead plus important new ones. Yet now it costs only a fraction of a cent more per pound than chemical lead. Available in sheets, pipe and coils. For further facts, write our nearest branch.

NATIONAL LEAD COMPANY

New York, Baltimore, Buffalo, Chicago, Cleveland, Cincinnati, St. Louis; National-Boston Lead Co., Boston; John T. Lewis & Bros. Co., Philadelphia; National Lead & Oil Co., Pittsburgh; Georgia Lead Works, Atlanta; American Lead Corp., Indianapolis; Master Metals, Inc., Cleveland; The Canada Metal Co., Ltd., Toronto, Montreal, Winnipeg, Vancouver.

SMOOTH, DURABLE FORMICA TOPS -with Inlaid Scales!

FOR inspection tables for hosiery, knitted goods or fabrics that are likely to snag on rough surfaces, Formica table tops offer a very satisfactory material. The surfaces are unusually smooth and they are also hard and durable. If it is desired, scales may be inlaid in the surface providing a permanent and unchanging method of measurement.

In addition to smoothness and durability, Formica is very inert chemically and is not spotted or injured by many solutions that would destroy any finish that can be put on wood. It is not brittle and will not chip or crack. Formica table tops are available in light colors which are a help in inspection work.

Ask for the facts.

The photograph shows inspection tables in use at the Real Silk Hosiery Mills in Indianapolis.

THE FORMICA INSULATION COMPANY
4653 Spring Grove Avenue Cincinnati, Ohio

FORMICA

FOR FURNITURE AND FIXTURES

Pacific "Factag" Answers the Consumer's Questions

IN RECOGNITION of the widespread and increasingly active demand on the part of the public for trustworthy facts regarding the merchandise it buys, Pacific Mills has developed a method of informative labeling by which the essential facts are clearly and authoritatively conveyed to the purchaser of Pacific Fabrics whether in men's, women's or children's apparel. The means by which this fundamental merchandising development is set in motion and carried through in the interest of the public and of the trade, is the Pacific Factag.

The Pacific Factag presents in simple, clear language the facts which careful investigation has shown that the public most wants to know and the retailer most wants to give about a fabric. In the case of cottons for women's year, these facts are, color fastness to washing and to light, fiber content, washing and handling instructions and any special features such as shrinkage data, special finishes, etc. For other types of fabrics other features will be stressed instead of or in addition to the above,—such for instance as fastness to perspiration, to dry cleaning, etc.

New hang-tag developed by Pacific Mills

The method of conveying information regarding color fastness through the Pacific Factag is of especial interest and importance. Here Pacific has inaugurated what may prove to be a merchandising innovation—namely rating the degree of color fastness both as to washing and as to light.

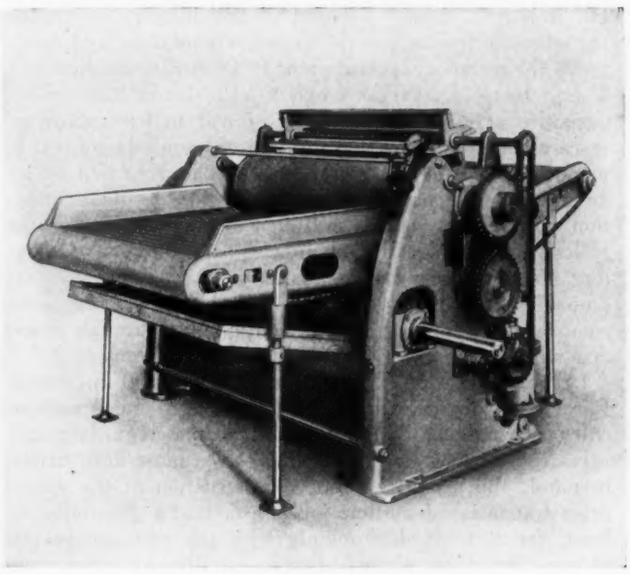
The color ratings are based upon authoritative standard tests developed by the National Association of Finishers of Textile Fabrics in cooperation with the American Association of Textile Chemists and Colorists and other leading textile organizations.

By giving the essential facts about a fabric quickly, clearly and authoritatively, the Pacific Factag, in the opinion of the company, does all these things for stores:

1. It answers the questions which customers are asking the stores about the fabrics in the garments they buy.
2. It gives facts that help sales people in their selling, and thus serves as a valuable aid to sales training.
3. It acts as a silent salesman when sales people are busy.
4. It improves customer relations by imbuing store customers with confidence in the performance to be expected from the fabrics in the garments they buy.
5. It tends to reduce store claims by telling customers just how to wash and handle garments.
6. It provides a new means of interesting customers in what they are buying and provides striking evidence of the stores' willingness to give the consumer facts.

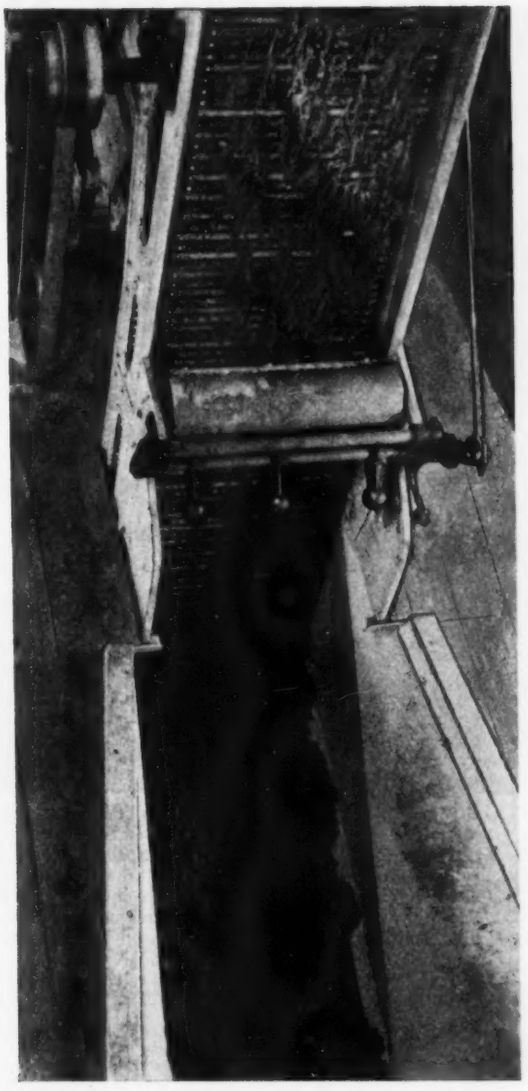
HOW TO EXTRACT MOISTURE FROM STOCK

Continuously AND *Automatically*



The units pictured on this page show separately the most modern and efficient way to extract moisture from raw and dyed stock.

Operation is simple and continuous. Your operator discharges the batch into the hopper of the pit feeder. The stock then flows continuously through the squeeze rolls, through a blower system to the dryer feed. Only one operation is required and only 5 to 10 H.P.



These up to date Hunter Units — Pit Feeder and Hydraulic Squeeze Rolls are in daily operation on bleached and dyed cotton, jute, wool, rayon and etc.

We invite you to write for specific savings made with these units (one dye house reports a savings of $15,000.00 yearly). We will also send you details of the new Hunter Raw Stock Dryer and Rotary Feed.

JAMES HUNTER MACHINE COMPANY

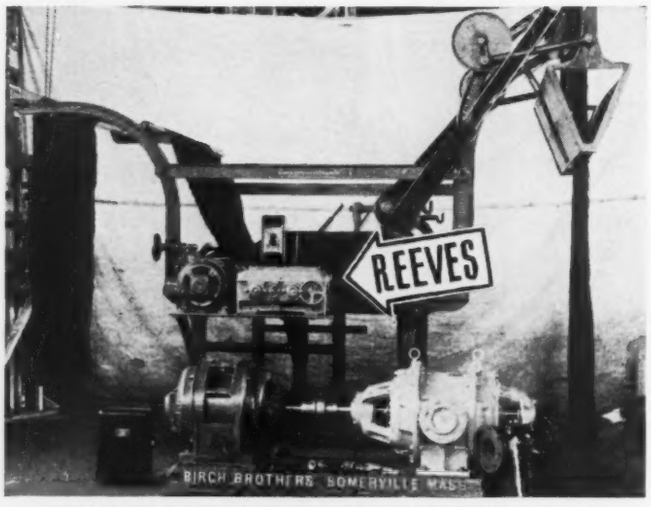
Founded 1847 **NORTH ADAMS, MASSACHUSETTS**

Southern Agent: **Carolina Specialty Co., Charlotte, N. C.**

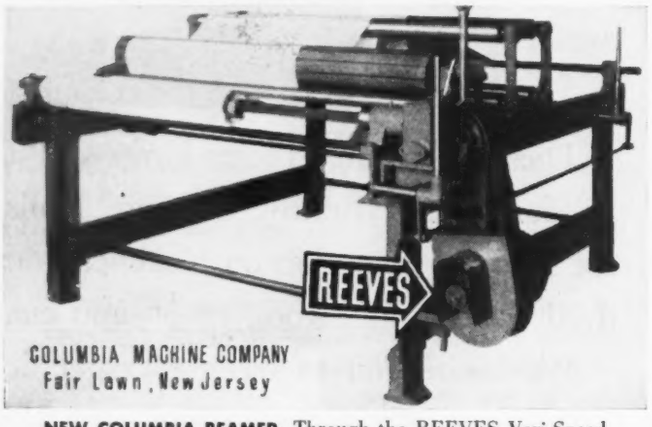
Western Rep.: **E. G. Paules, 343 Bendix Bldg., 1206 Maple St., Los Angeles, Calif.**

WHERE ACCURATE SPEED CONTROL IS NEEDED MOST

You'll find Reeves!



HIGH SPEED VACUUM EXTRACTOR. Birch Brothers wanted highest degree of accuracy and greater flexibility in speed settings for this new Individual High Speed Vacuum Extractor. Naturally they came to REEVES for the speed control that has been proved accurate and dependable in more textile installations than with all other speed control devices combined. The unit used is a REEVES Variable Speed Transmission. Speeds range from 15 to 45 yards a minute.



NEW COLUMBIA BEAMER. Through the REEVES Vari-Speed Motor Pulley, Columbia Machine Company provides much more flexible speed control than with old style disc friction drives. Beamer now has speed range of 3:1, enabling user to run from 20 to 70 yards per minute.

● Textile machine builders and operators cannot afford to gamble with unproved speed control. REEVES' long familiarity with the problems of this industry, and literally thousands of applications to practically every type and kind of textile machines, insures greatest dependability, accuracy and flexibility of operation and long, continuous satisfactory service. Write for Catalog G-397 which, in all probability, illustrates and describes exactly the kind of installation you have in mind.

Reeves

REEVES PULLEY CO.
Dept. W, COLUMBUS, IND.

SPEED CONTROL

"Fructiferous" Cotton Convention

Continued from Page 77

Concerning the business outlook, Dr. Murchison reported that "on the industry front the events of the past few weeks have evidenced steady improvement. The statistical position of the cotton-textile industry is particularly good, and, generally speaking, mill inventories are not burdensome. In many lines mill stocks are considerably below the long-time average." Dr. Murchison closed his remarks by saying that "careful watchfulness and outspoken frankness will sustain a spirit of caution which is necessary to stable operation," and that all of the associations of the industry are determined upon such a course.

SCIENTIFIC RESEARCH should be a cooperative venture since it is usually too expensive for the average mill, declared Dr. Robert E. Rose, chairman of the advisory committee for scientific research of the Textile Foundation, and director of the technical laboratory of E. I. du Pont de Nemours & Co. He said, that although a mill should have on its executive staff men who have a broad understanding of research methods as well as a practical knowledge of textile manufacture, true scientific research is best carried on by an independent organization such as the Textile Foundation. Dr. Rose urged the mill men to appoint a committee to look into "the really valuable and very efficient laboratory which is already under operation by the Textile Foundation," and to make the work of this laboratory more comprehensive by assuring its continuation through financial support.

Dr. Virgil Jordan, president of the National Industrial Conference Board, in a detailed analysis of the American enterprise system, continued the theme regarding the necessity for long-range planning. "We must have firmly in mind," he declared, "that reconstruction of the enterprise system is a long-time job, the task of a generation at least, for it must deal mainly with the younger people of our time upon whom the responsibility for preserving and improving the enterprise system will fall, if it is to survive." This reconstruction is a "grass-root job", which must essentially be localized. It depends greatly on finding more effective means of securing realistic knowledge through research and contact such as can be done by trade associations, he said.

At the Saturday morning business session the following committee reports were made: Cotton—A. K. Winget, Albemarle, N. C.; Traffic—R. R. West, Danville, Va.; A.C.M.A. Student Loan Fund, Inc.—W. M. McLaurine, Charlotte, N. C.; National Industrial Conference Board, Inc.—Stuart W. Cramer, Cramerton, N. C.; Resolutions—R. R. West; Nominations—John H. Cheatham, Griffin, Ga.

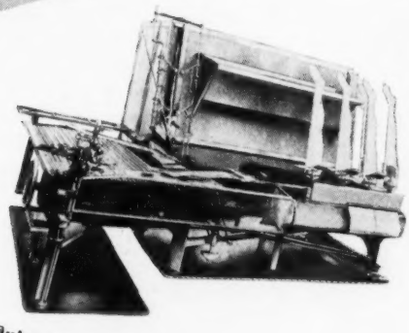
Fred W. Symmes, of Greenville, S. C., was elected president of the association, moving up from the position of second vice-president to that of president, as had been indicated some time ago when Robert R. West, first vice-president, resigned. Special recognition was given Mr. West by John Cheatham, chairman of the nominating committee, who on the part of the membership wished him godspeed in his future activities. W. N. Banks, of Grantville, Ga., was chosen first vice-president, and Charles A. Cannon, of Kannapolis, N. C., was elected second vice-president. W. M. McLaurine was reelected secretary and treasurer.

Directors elected were Harvey W. Moore, George P. Swift, George M. Wright, Stuart W. Cramer, Jr., and Fuller E. Callaway, Jr. R. C. Moore was named to fill the unexpired term of Charles Cannon.

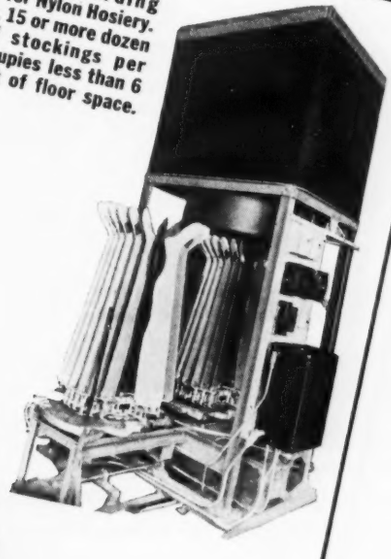
W. H. Ruffin, assistant treasurer of Erwin Cotton Mills Co., Durham, was winner of low-gross golf prize with the score of 85. J. E. Moore, of Charlotte, N. C., took first prize in the skeet shoot.

Their Advantages Identify Them

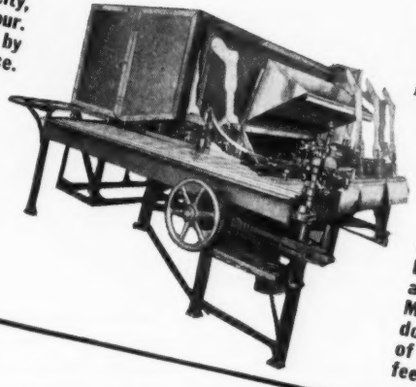
- UNVARYING MAINTENANCE OF QUALITY
- MAXIMUM COMFORT FOR THE OPERATORS
- HIGHEST POSSIBLE PRODUCTION
- VERY LOWEST OPERATING COSTS



Proctor Automatic Boarding, Drying, Stripping, Piling and Counting Machine for Women's Hosiery. Capacity, 32 dozen pairs per hour. Requires only 9½ feet by 11½ feet of floor space.



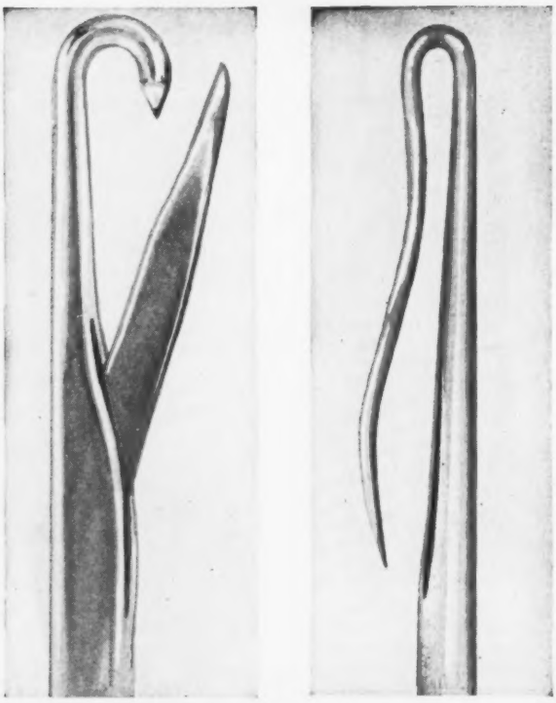
Proctor Automatic Single-Operator Preboarding Machine for Nylon Hosiery. Capacity, 15 or more dozen pairs of stockings per hour. Occupies less than 6 by 10 feet of floor space.



Proctor Automatic Boarding, Drying, Stripping, Piling and Counting Machine for Men's Half Hose. Capacity, 52 dozen pairs per hour. The size of the Machine is only 10½ feet wide by 9½ feet deep.

PROCTOR & SCHWARTZ AUTOMATIC MACHINES *for* HOSIERY

COOPER NEEDLES



ARE SECOND TO NONE

Charles Cooper Company are makers of both spring needles and latch needles of the very highest quality. The very latest devices and controls are used in the tempering equipment, thus insuring the greatest possible precision in uniformity of temper.

Every step is closely guarded by automatic equipment which is accurate and positive in its action, thus holding everything to the exact time limit set for each and every function in the tempering process.

The very latest ideas in automatic needle-making machinery are embodied in every automatic machine used by the company in the manufacture of its needles, both spring and latch; and therefore all the many advantages that are inherent in an automatic machine-made product are very definitely represented in the needles of Cooper manufacture.

All this is backed up by workers who have spent a lifetime at the business of making needles and have become familiar with every phase of the fine art of needle making.

The user of Cooper needles gains all the benefits possible from this efficient and experienced force of workers, together with the very highest grade of steel wire obtainable, the use of automatic devices for hardening and tempering and also the latest ideas in automatic machines to form the wire into its various shapes and sizes.

On all this is based our claim that we make a needle that is second to none in all the important qualities required in a knitting needle.

CHARLES COOPER CO., INC.
Bennington, Vermont, U. S. A.

Long Island Mill Reaches Age of 100

Little N. C. plant stream-lined in old age

By MILDRED G. BARNWELL

DOWN IN NORTH CAROLINA a little cotton mill is celebrating its hundredth anniversary. To find it, one leaves Lincolnton on Highway 150 toward Mooresville, turns at the cross-road postoffice of Terrell, drives past the big boulder commemorating the plate where "Adam Sherrill, the pioneer, and his eight sons forded the Catawba River in 1747," follows a twisty dirt road seven miles to the tiny village of Long Island. There—on the banks of the Catawba the Long Island Cotton Mills have given employment for one hundred consecutive years.

Long Island is a lady now, in her old age, and a streamlined lady at that, what with modern machinery and all, but her past smacks of the good old days when men took what they wanted and got what they deserved. There is the tale of the mill's founders, told by one of the oldest timers around: "Doc Powell and Mr. Shuford built the mill. They were the first owners. Doc Powell, he was a good man. He was a doctor and that big house is where he lived, hard by the mill, and that leetle house, it was his office. He sho' was a good man. All the folks around who wouldn't lend their money to anybody else would always lend it to Doc Powell, he was such a good man . . . But he went broke in the cotton mill and he tried to pay off with little round checks and all the folks brought 'em to my daddy who was

Group of Long Island mill workers of about 50 years ago

justice of the peace to try and get their money back, but the checks weren't good. The Powells they moved to Florida.

And then, Lum Turner—who really had no use for a cotton mill, but who liked to attend a good sheriff's sale just for the frolic—got drunk and bought the Long Island mill anyhow, and he and his folks ran it for a while. At that time the mill had five spinning frames, 20 ends to a frame. Later James Brown, a native of England, came down from the North and bought the mill. Under his management the product was cheap cotton hosiery. He built a little store, and sold his stockings to the country folks—but one night he was shot and kill by a robber.

After James Brown's death, Osborne Brown, his son, carried on. On April 1, 1929, the mill was sold to Superior Yarn Mills, Inc., the present owner. Today, as part of that group, it is under the management of W. H. Suttenfield.

A hundred years have made relatively few changes. Way back yonder the country people worked in the mill, then a small wooden structure. Today their descendants—93 of them—work in the 5,468-spindle mill, now brick, and live in the three-store village which has grown up around it. Improvements have been made in manufacturing at Long Island.

No Stops

It's a no-stop run when your frames start up with Pawtucket Rings. The low number of ends down . . . and longer traveler life . . . reduce both operating and maintenance costs. Pawtucket Rings give your travelers a "turn for the better."

PAWTUCKET SPINNING RING CO.

(Subsidiary of Saco-Lowell Shops)

CENTRAL FALLS, RHODE ISLAND

Vitritex finish

CUT OUT AND KEEP THIS INFORMATION FOR PERMANENT REFERENCE

This is number 3 of a series. Here you will find practical information of interest to users of rings

There is no element on the spinning frame which receives less care and more abuse than the spinning ring, a precision product, capable of rendering years of useful service, often under unfavorable conditions. One of the most fruitful sources of ring damage comes from travelers which are unsuitable to the job, and more often, from travelers which have been allowed to run too long. There is no trouble in selecting a traveler of the proper circle, weight, and flange, since these elements can be checked by means of gauges and micrometers. Of equal importance is the texture of the traveler, wire, its grain temper and hardness.

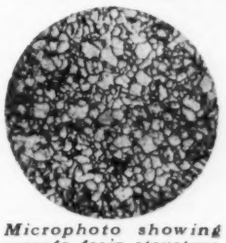
No. 27 traveler hook for heavy sizes

A coarse grain traveler stock, soft and poorly tempered, will soon deposit a microscopical layer of fine powder on the ring surface, which soon works its way into the pores of the ring, giving rise to that phenomenon known as "leading." A leaded ring causes end breakage, and weak and dirty yarn. On the other hand, a traveler which has not been properly tempered, and which is hard and brittle, will soon cut the ring, giving it an appearance as though it were treated with a file.

The traveler makers, especially in the United States, have worked with the ring makers so that today, there is generally a satisfactory balance between hardness and temper of the ring and traveler surfaces, especially when the travelers are first installed.

No. 48 traveler hook for light sizes

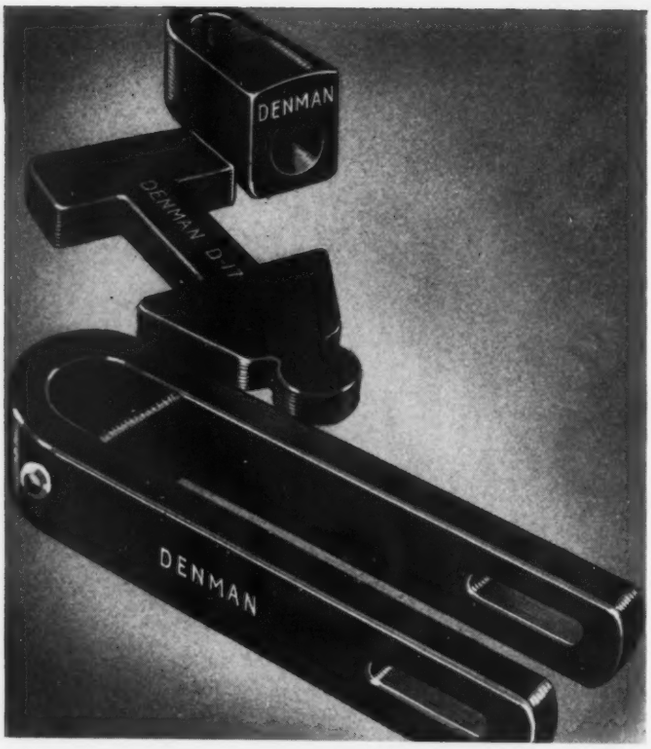
Many mills practice false economy in allowing their travelers to run too long. No traveler should stay on the ring until it burns off — a practice sometimes followed in the fine yarn mills. As soon as the points of the horns show wear, or begin to turn blue, it is time to change them. Observation, with a few simple control tests, will soon establish the proper interval between traveler changes on any given set of frames.



Microphoto showing average grain structure for travelers

Removing the old travelers is a problem. Some overseers allow the traveler changers to break the old travelers with a stout blow from a roving bobbin. Removing them with a traveler wrench is certainly a safer and more mechanical method.

Saco-Lowell Shops, Boston, Mass.



DENMAN

Throughout the Textile Industry, the name DENMAN is recognized for its leadership in the production of Fabric Loom Parts.

Close co-operation between the Denman Research Laboratories and our field men — hundreds of tests under actual working conditions — and years of excellent performance, even under the most gruelling weaving requirements — are responsible for DENMAN'S outstanding success as America's foremost manufacturer of Long Life — Low Cost Loom Parts.

For your protection, the name DENMAN is clearly stamped on all Denman products.

For LOWEST COST PER LOOM PER YEAR Specify DENMAN

The Terrell Machine Co., *Inc.*

CHARLOTTE, N. C.

Luther Pilling, Danielson, Conn.—N. E. & Canada
E. W. S. Jasper, Elizabeth, N. J.—Penn. & N. J.
Geo. Thomas & Co., Ltd.—Manchester, England

The machinery is modern, with combers installed six years ago. But the mill is still operated by water power. The little store established by James Brown still carries in stock some of the hose once knitted at Long Island.

The real change—according to the oldest old-timer—is in wages and work time: "When I was a boy I worked in the mill for 57¢ a day, and now a body can't get less than 33¢ an hour under Mr. Suttenfield's management. And I used to work 12 to 14 hours, but the boys now has plenty of time for fishin' and farmin'. And they does good farmin' too, raise good cotton, 'cause the mill passes out good seed. I run the gin for 'em, and the mill mostly uses cotton our country folks raise."

Cannon Memorial Y.M.C.A. an Achievement in Community Work

AT KANNAPOLIS, N. C., the most complete and modern Y. M. C. A. building available for textile employees in the entire nation was opened with simple ceremonies recently.

The handsome new $200,000 Cannon Memorial building will serve as an adequate recreation center for approximately 10,000 members, as well as a meeting place for various civic clubs and organizations of the community. James W., and Mary Ella Bost Cannon are honored in the erection of this beautiful colonial structure.

New Cannon Memorial Y.M.C.A. biulding

One of the beauty spots of the building is the library located on the main floor, with space for 4,000 volumes of history, science, art and fiction. In one end of the room an open fireplace is provided to add its warmth and cheer during winter months. Indirect lighting is used. Individual study tables, magazine racks, large reading tables and comfortable chairs and lounges all of early-American design add to the comfort of this room, which is under the direction of Miss Edith Barbee, librarian.

Billiard and bowling rooms with 6-alleys, two handball courts, two gymnasiums, game and recreation rooms are provided, as well as kitchens, canteen, barber shops, etc. An auditorium and social room on second floor seats 200.

An interesting possibility for future development is the roof garden which will provide space for open air meetings.

John T. Fesperman, as general secretary, will direct the activities of a staff of approximately 50 persons. He has been with the local association eight years. Miss Bessie Breedlove will have direct charge of the women's department.

The boys work will be under T. C. McKnight, a popular local leader. In this department nearly 1,000 boys will be enrolled. Assisting in this work is Walter Safrit. Elbert Lippard will serve as business manager, assisted by Miss Gertrude McDonald. George A. Allen, general superintendent of Cannon Mills Plant No. 1, a long-time and popular member of this splendid organization, is chairman of the board.

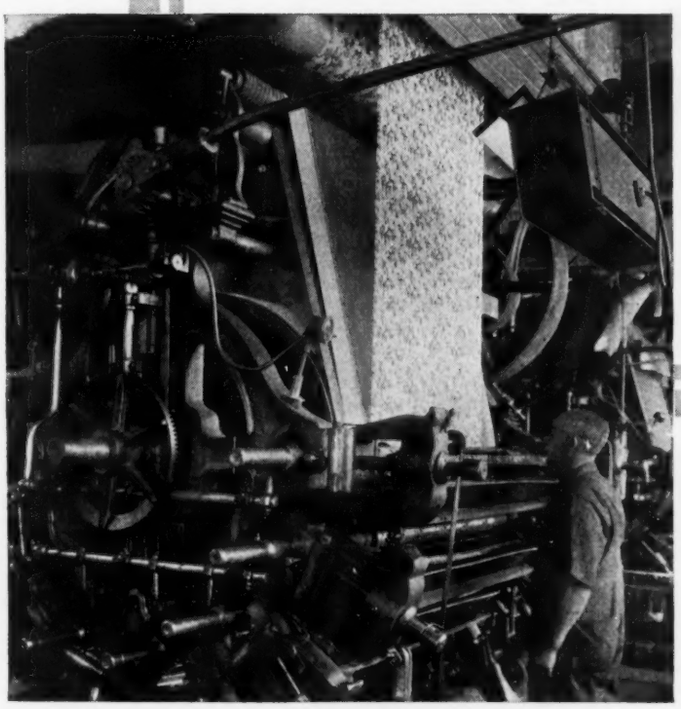
The architectural and engineering features of the building were designed by J. N. Pease Co., who are located in Charlotte, N. C.

YARMOR 302

DISPERSES PIGMENTS PROPERLY

IN

PRINTING PASTES



Printing is clearer and crisper in detail and color when Yarmor is used in the paste. Leading mills are using it to get better prints.

Yarmor* 302—penetrant, dispersant, detergent-assistant—packs plenty of punch in all wet-processing. Here's how it works in printing.

When Yarmor is used as a pasting aid, sharp designs of uniformly bright color result. The tendency to speck is markedly reduced. In the paste, Yarmor's penetrant action lowers surface and interfacial tensions so that pigment particles are completely wetted. Yarmor's dispersing action then spreads the individual particles evenly throughout the paste, and holds them in suspension against the tendency to agglomerate until the design has been transferred to the fabric. Thus designs are sharp, colors are bright and clear, and specks are kept from forming.

Yarmor 302 thus is a triple-action assistant, and does the same fine work wherever water is used. It is efficient and economical, because it is highly concentrated. A little does a lot, and does it well. Try Yarmor sometime soon—for printing, in dyeing, or in any wet-processing operations. Take advantage of this low-cost triple-action aid.

Naval Stores Department

HERCULES POWDER COMPANY

994 MARKET STREET, WILMINGTON, DELAWARE

*REG. U. S. PAT. OFF. BY HERCULES POWDER COMPANY

YARMOR 302 GIVES TRIPLE ACTION

00-58

WETS

DISPERSES

SUSPENDS FOR RINSING

N-25 BEATS SOAP

New detergent proves superior—beats soap at own game!

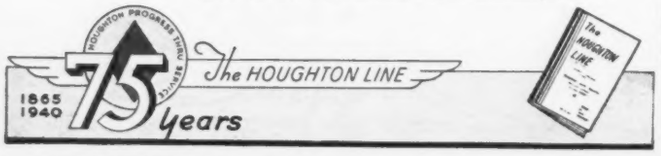
Already there are hundreds of cases throughout the textile industry where Houghton's N-25 has proved better than soap in every respect . . . under both normal and abnormal conditions. In many cases where soap is rendered ineffective and inefficient, N-25 does the job with outstanding efficiency and economy.

N-25 is being used extensively and very successfully for scouring, dyeing, soaping off, laundering, washing, boiling off or wetting out. Always it shows excellent detergency at all temperatures, high sudsing action and extraordinary wetting-out and penetrating properties.

We would welcome the chance to prove these claims . . . in *your* plant. Write for factual folder, or ask the Houghton Man.

E. F. HOUGHTON & CO.

240 W. Somerset Street, Philadelphia, Pa.
1301-05 W. Morehead St., Charlotte, N. C.



NEWS ABOUT MEN

Ferdinand Thun, president of Berkshire Knitting Mills, Reading, Pa., has contributed $100,000 to a fund for establishment of an American-German cultural center in Philadelphia. He is president and one of the founders of the Carl Schurz Memorial Foundation, sponsor of the project. In addition, Mr. Thun, with **Henry Janssen,** president of Textile Machine Works, has donated land for a new U. S. Post Office at Wyomissing; ground for the building was broken recently.

George S. Harris, former president of American Cotton Manufacturers' Association, has been elected president of Riverside and Dan River Cotton Mills, Danville, Va., succeeding **Robert R. West,** resigned. He will assume his new duties May 1.

Mr. Harris has for the past seven years been executive vice-president of Springs Cotton Mills, Fort Mill and Lancaster, S. C. Prior to that, he was identified with Exposition Mills, Atlanta, Ga. He is a native of Cedartown, Ga., where he was born in 1881. He was educated at United States Naval Academy, Georgia School of Technology, and Lowell Textile Institute.

Wilbur C. Munnecke has been elected a vice-president of Marshall Field & Co.; he will have full responsibility for the manufacturing division. **H. McBain,** first vice-president, under whose supervision Mr. Munnecke formerly worked, has been appointed general manager of Marshall Field & Co. Retail.

William C. Summersby has resigned as agent of Bates Mfg. Co., Lewiston, Me.; there have also been the following other executive changes at Bates and affiliated mills: **John A. Collins,** agent of Androscoggin Mills, becomes agent of the Bates mill; and **George E. Spofford, Jr.,** agent at Hill Manufacturing Co., succeeds him at Androscoggin. **Edwin L. Lyons,** superintendent of the Hill mill, becomes agent of that plant.

William De Min has been elected president and treasurer of Manufacturers Textile Export Co., selling agents in the export field for Clarence S. Brown & Co., Kendall Mills, and Pepperell Mfg. Co.; he succeeds **Frank Hillery.**

J. P. Maguire was elected to the board of directors of Botany Worsted Mills, succeeding **Henry C. Whitehead,** retired. Mr. Maguire is president of J. P. Maguire & Co., factors, New York. Other directors, and present officers of the company, were reelected.

James L. Geoffroy has been elected president of American Bleached Goods Co., Inc., and Federated Textiles, Inc., succeeding **William F. Adams,** who becomes chairman of the boards of both companies.

W. A. Traver was presented with a silver plaque recently by his associates at Franklin Process Co., Providence, R. I., where he is vice-president and general manager; the occasion was in celebration of his completion of 25 years connection with the organization.

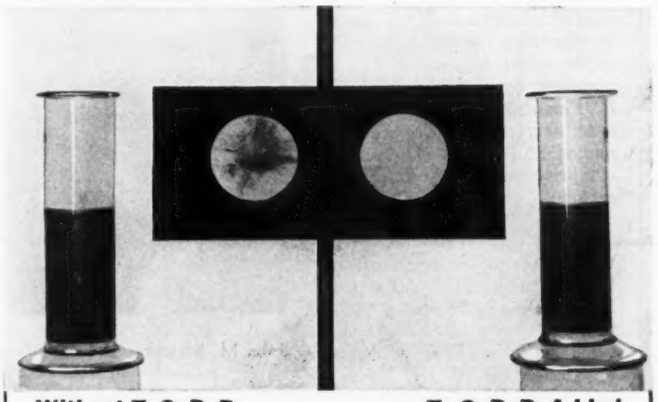
Claude Shelton on May 1 became vice-president and general manager of Artcraft Silk Hosiery Mills, it was announced by **J. Klugelman,** president.

Robert L. Anthony was elected president for the fifth time of Rhode Island Textile Association; **George P. Clark** and **Edward F. Walker** were reelected vice-president and treasurer, respectively.

Joseph J. DeLuccia has been elected president of the Dyers & Printers Employers' Association; he is also president of Triangle Dyeing and Finishing Co. and Blackmore Dye Works; **Charles Horne,** of Empire Dye Works, is retiring president. **Charles Veronelli,** LaFrancaise Silk Dyeing & Finishing Co., was elected vice-president; **Alfred Bohny,** Modern-Central Dyeing & Finishing Co., and **Bert B. Allen,** Gaede Silk Dyeing Co., were reelected treasurer and secretary, respectively.

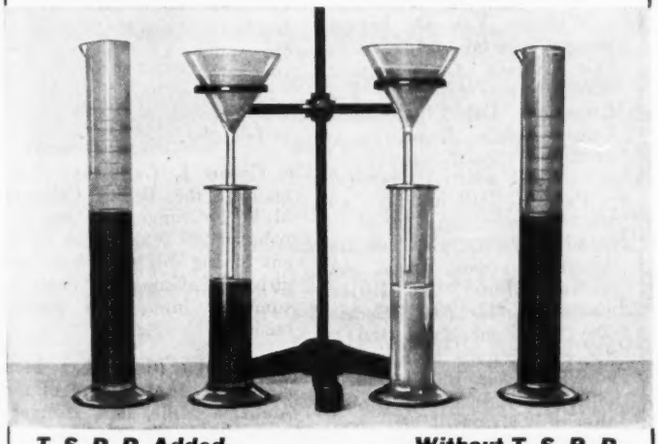
DU PONT Tetra Sodium Pyro Phosphate

Builds Better Cleaning Compounds



Without T. S. P. P. ***T. S. P. P. Added***

This experiment illustrates the advantage of dispersing dirt with Tetra Sodium Pyro Phosphate. Each cylinder contained water plus the same amount of burnt umber (a standard material used for dirt tests). The cylinder on the right contained, in addition, 0.1% T. S. P. P. Equal amounts of these solutions are filtered through two identical discs of unsized cotton fabric and rinsed twice. Notice how the dirt dispersed by T. S. P. P. passed through the cloth on the right without soiling it . . . and how the cloth on the left was soiled by deposition of the undispersed dirt on the fibers.



T. S. P. P. Added ***Without T. S. P. P.***

In this experiment the dirt (burnt umber) in the solution on the right was retained on the filter, leaving the filtered solution clear and the filter dirty. The dirt dispersed by T. S. P. P. in the solution on the left readily passed through an identical filter. The solution remains dirty and the filter clean.

● Detergent action involves not only the removal of dirt, but also the stabilization of the dirt in suspension in order to prevent its coagulation and redeposition on the article being cleaned. Outstanding among the characteristics of DU PONT Sodium Pyrophosphate as a detergent aid and soap builder is the ability to disperse particles of foreign material and to prevent their redeposition. This action is not confined to solid dirt particles but aids in dispersing grease, soil and salts precipitated through water softening.

Because of their porous structure, fabrics act as filters to remove solid particles from the washing and rinsing solutions. Due to the action of DU PONT T. S. P. P., the dispersed particles are so finely divided and uniformly suspended that they readily pass through the meshes of the fabric and are not retained to re-soil the cloth. DU PONT T. S. P. P. is also odorless, improves emulsification and sudsing. As a result, clothes wash whiter, rinse better and are cleaner.

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NEWS ABOUT MEN

Ray C. Kramer, director, has been elected chairman of the board of Belding-Heminway Co., fiilling an office vacant for the last two years. Mr. Kramer previously occupied this chair and, after vacating it, continued as a director.

Alfred L. Tyler, president and treasurer, Anniston (Ala.) Manufacturing Co., has been elected chairman of the board of directors. He is succeeded in the position of president and treasurer by **F. G. Tyler. W. B. Pennington** has been elected secretary. The above-named and **W. H. Deyo** now comprise the board of directors.

James H. Porter, vice president and chairman of the board of the Bibb Mfg. Co., Macon, Ga., has donated $150,000 to Mercer University for construction of a girls' dormitory in honor of Mr. Porter's late sister, Mary Erin Porter, who died when she was 13. The new dormitory will be known as Mary Erin Porter hall.

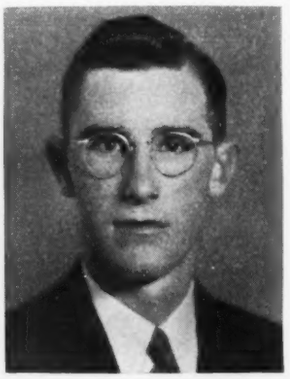
Donald Comer, an executive of the Avondale Mills, Birmingham, Ala., has been appointed to head the organization work in Alabama to carry out a 10-year plan of economic development formulated by the Southern Governors' Conference.

William Van D. Jewett, former general manager of Farr Alpaca Co., Holyoke, Mass., is now associated with Grosvenor Dale Co., North Grosvernordale, Conn., in an executive capacity.

Paul E. Hill has been appointed general manager of the Meadville, Pa., plant of the American Viscose Corp., succeeding **Henry H. Bitler,** manager for the past 12 years, who has been transferred to the corporation's headquarters in Wilmington, Del., where he will serve as assistant technical director. Mr. Hill has been identified with the Meadville plant since 1929 as assistant to Mr. Bitler. **A. Dale Clark** has been named assistant plant manager.

Allen Jones has been promoted to general superintendent of the Muscogee Mfg. Co., Columbus, Ga., having been promoted to the new position from that of superintendent. **John P. Harrison** has been promoted to superintendent, from that of assistant.

Fuller E. Callaway, Jr., president of Callaway Mills, LaGrange, Ga., was the principal speaker at a joint meeting of Region 6 of the Boy Scouts of America and the Greenville, S. C., Rotary Club last month. Mr. Callaway is an active member of the Boy Scout regional executive committee, embracing the Carolinas, Georgia, and Florida.



John M. Mauney, of Lincolnton, N. C., a senior in the Textile School, was honored at North Carolina State College's Scholarship Day exercises, held May 2, with the medal given annually by the National Association of Cotton Manufacturers to the most proficient textile student in the graduating class. At the same exercises, Mr. Mauney also received the Sigma Tau Sigma cup which is awarded to the textile senior who has the highest scholastic average. Mr. Mauney is a son of D. H. Mauney, secretary and treasurer of Long Shoals Mills, and a brother of W. A. Mauney of the same organization, who graduated from the Textile School in 1937. Mr. Mauney will join the Washington Mills at Fries, Va.

Cason J. Callaway, chairman of the Board, Callaway Mills, LaGrange, Ga. has distributed 220 White Rock chickens among 4-H club boys and girls of LaGrange in order to stimulate interest in poultry raising.

Wm. L. Mohr has been elected a vice-president of the Alabama Mills, Inc., Birmingham, Ala. He is associated with Iselin-Jefferson Co. of New York, and has handled the sales of the Alabama Mills, Inc.

John Tillet, Charlotte, N. C., treasurer of the Leaksville Woolen Mills, Homestead, N. C., has been appointed a member of the Charlotte Housing Authority.

J. E. Sirrine, president and founder of J. E. Sirrine & Co., Greenville, S. C., is one of five outstanding southern citizens upon whom Presbyterian College, Clinton, S. C., will confer honorary doctorates at commencement exercises in June,

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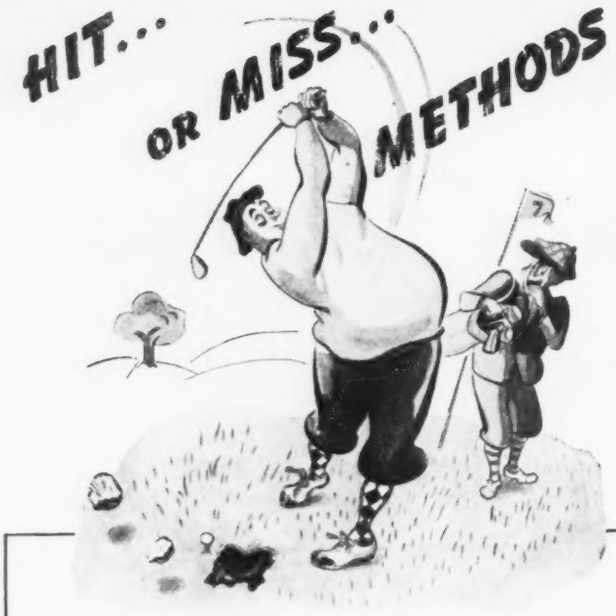

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NEWS ABOUT MEN

according to **William P. Jacobs,** president of Presbyterian College and executive vice-president of the Cotton Manufacturers Association of South Carolina. The degree, Doctor of Laws, will be conferred upon him. At the same time, **J. Choice Evins,** president of D. E. Converse Co., located near Spartanburg, will receive a similar degree from the college.

B. M. Bowen, Salisbury, N. C., has been re-elected chairman of the Piedmont Division of the Southern Textile Association. New members elected to the board were **M. T. Poovey** of Raeford, and **J. Manning Bolt** of Charlotte. **P. B. Parks, Jr.,** Erwin, N. C., president of the association, conducted a technical discussion on weaving and slashing at the meeting recently held in Charlotte and attended by approximately 100 members.

Garner H. Tullis, president of the New Orleans Cotton Exchange, has recently become a partner in the firm of Robert Moore & Co., New York. Mr. Tullis' new affiliation carries with it no change in his relations with his own firm, Tullis, Craig & Co., New Orleans.

John T. Wigington, cotton research specialist, has been named head of the cooperative spinning laboratory at College Station, Texas. He succeeds **Roland L. Lee, Jr.,** who has been in charge of the Texas laboratory since it was established in 1935. Lee will remain at College Station until he takes up his duties as head of the Textile Engineering Department at Texas Technological College in September. Mr. Wigington, graduated from Clemson Agricultural College in 1923, has been associated with the technical cotton research work of the U. S. Department of Agriculture for 14 years, with the exception of one period when he was engaged in commercial cotton research work.

Samuel A. Salvage, former president of the American Viscose Corp., was the guest of honor at a dinner given April 12 at the Vanderbilt Hotel in New York City by the Denier Club, industrywide social organization of rayon yarn salesmen. Members of the club honored Mr. Salvage as "the first rayon yarn salesman," and also for his work in developing the industry.

E. S. Cunningham is the newly elected president of the Dallas (Tex.) Cotton Mills, succeeding **W. B. Marsh,** who has resigned.

Irving K. Hessberg, president of Van Raalte Co., New York, who has succeeded R. C. Huffman as one of the vice-chairmen of the board of National Association of Hosiery Manufacturers.

Norman I. Stone has been appointed vice-president and a member of the board of directors of Brooklyn, (N. Y.) Yarn Dye Inc. Mr. Stone has been connected with the company for the past four years, both in plant management and sales capacities.

William Carter, of New Bedford, Mass., who operates the William Carter Thread Co. of that city, has obtained a patent on an improved method for yarn singeing.

A. B. Edge, vice-president of Callaway Mills, La Grange, Ga., has been made chairman of the Cotton Committee of the Georgia Cotton Manufacturers Ass'n.

J. M. Swan, assistant general sales manager of Holeproof Hosiery, has been promoted to Southern division sales manager and will have headquarters at Marietta, Ga.

J. Spencer Love, Burlington, N. C., has been made president of the Townhouse Hosiery Mill, Chilhowie, Va. Other officers are **W. S. Coulter,** vice-president; **C. Eugene Rowe,** secretary-treasurer; and **W. Glenn Kennerly,** assistant treasurer.

M. T. Grimes, connected with the Cia de Tejidos de Rosellon, Medellin, Colombia, S. A. is spending a few weeks in this country on a short vacation. Mr. Grimes, formerly a prominent Georgia cotton manufacturer has been in South America since May, 1939. He is visiting his daughter and son at Gainesville, Ga.

E. G. Ritzman, of Durham, has been elected president of the Central Wool Marketing Corp., a New Hampshire cooperative which serves the states of Maine, New Hamp-

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NEWS ABOUT MEN

shire, Vermont, Massachusetts, New York, Illinois, West Virginia, Kentucky, Texas, Montana, Wyoming and Idaho. **David E. Judd,** of Boston, was named treasurer; **David F. Landrigan,** of Boston, secretary; and **George M. Putnam** of Contoocook, clerk.

Giles E. Hopkins has been appointed Technical Director of the U. S. Asbestos Division of Raybestos-Manhattan, Inc. Mr. Hopkins was with the Bigelow-Sanford Carpet Co. as Chemical Engineer and Technical Director for 11 years before his present association with the United Shoe Machinery Corp. He took up his new responsibilities in the Manheim, Pa. laboratories on May 1st.

W. A. Drisler, formerly associated with Callaway Mills has been elected vice president and sales manager of Pond Lily Co., New Haven, Conn. Mr. Drisler will be in charge of sales of the dyeing and printing divisions.

J. D. Johnson, president of Canada Cement Co. Ltd., and **C. E. Gravel,** of Montreal, Que., were recently elected directors of Belding-Corticelli Ltd. at the annual meeting held in Montreal.

W. P. MacDougall, president of Belding-Corticelli Ltd., was the guest of honor and recipient of a presentation recently, at a luncheon tendered him at the Mount Royal Hotel, Montreal, by the company's department heads and managers of the St. Johns and Coaticook mills to mark his recent elevation to the presidency of the company. Mr. MacDougall started as a boy with the company.

S. A. McCosh has resigned as overseer of the carding department of the Eagle & Phenix Mills, Columbus, Ga., to become overseer of the carding department of the Opp (Ala.) Cotton Mills, and has been succeeded by **Gaines Huguley,** formerly overseer of the spinning department.

Harry H. Purvis, superintendent of the Chicopee Mfg. Corp. of Ga., Gainesville, will sail early in June for Sao Paulo, Brazil, on a special assignment in connection with the textile company operated there by Johnson & Johnson, parent organization of the Chicopee Mfg. Co. He will be away from this company for several months, and upon the completion of the work there will return to his present position at Gainesville.

W. M. James, formerly overseer of the cloth room of the Gayle unit of the Springs Cotton Mills, Chester, S. C., has become overseer of the cloth room at the Highland Park Mfg. Co., unit No. 3, Charlotte, N. C.

George Fletcher Johnston has been put in charge of the towel department of Mooresville, (N. C.) Mills in the new direct-sales office which was opened on Apr. 5, in New York.

Thomas W. Lawton, a former Farr Alpaca Co. official, has been engaged by the Berkshire Fine Spinning Associates as an overseer in the cotton mill. He left Farr in 1936 for the Monument Mills where he has been since.

W. B. Morgan has resigned as superintendent of the Florence Cotton Mills, Forest City, N. C., and has been succeeded by **Harold A Deal,** formerly of Cornelius, N. C., who was formerly associated with the Judson Mills, Greenville, S. C.

Marchant Cottingham has become assistant superintendent of the Inman, (S. C.) Mills. He was graduated in textile engineering at Clemson College.

F. R. Gregory, formerly overseer of spinning, spooling and warping at the Cutter Mfg. Co., Rock Hill, S. C., has accepted a similar position with the Highland Park Mfg. Co., Charlotte, N. C.

Joe Guinane has become superintendent, and **B. Baumgardner,** assistant superintendent of the Clay County Products Co., full-fashioned hosiery mill, at Green Cove Springs, Fla.

Joe F. Chalmers, superintendent of Greenwood, (S. C.) Cotton Mill, has been made superintendent of Mathews Cotton Mills, Greenwood, succeeding **Fred L. Still,** resigned. Mr. Chalmers, for several years superintendent of the Greenwood mill, will be succeeded by **J. T. Ficklin,** assistant superintendent of Ninety Six Cotton Mill.

R. W. Schrimshire has been appointed superintendent of the Jordan Mills, Columbus, Ga., having been promoted to this position from that of assistant.

Brandon Payne, night overseer of the No. 2 carding department of the Cannon Mills Co., Kannapolis, N. C., has been promoted to assistant night superintendent. **E. H. Warren** succeeds Mr. Payne.

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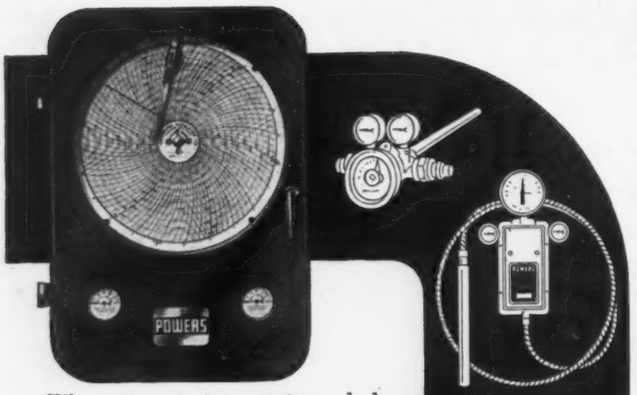

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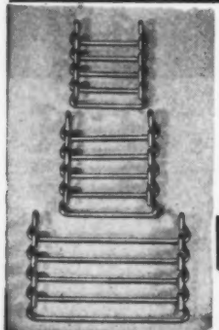

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NEWS ABOUT MEN

R. W. Hollis, superintendent of the Alabama Mills, Inc., Aliceville, Ala., plant, has been transferred to Russellville, as superintendent of the unit of the company there. **W. N. Scroggins** has been promoted from overseer of weaving at the Aliceville unit to succeed Mr. Hollis as superintendent, and **Norman Yarborough** has been promoted to overseer of the weaving department to succeed Mr. Scroggins.

Barnard E. Mobley, an official of the dyeing department of the Valway Rug Co., La Grange, Ga., unit of the Callaway Mills, has been promoted to superintendent of supplies in the same mill.

Sam D. Tridmore, formerly overseer of weaving at Carter Fabrics Corp., South Boston, Va., new mill, has accepted a similar position with the Abbeville, S. C., Cotton Mills.

William S. Greenwood has severed his connection with the Merrimack Mfg. Co., Lowell, Mass. after 25 years as superintendent in charge of converting velveteens and corduroys. Previous to going with Merrimack he was with the English Velvet & Corduroy Dyers Association, of Manchester, England.

T. G. Rayfield has become assistant superintendent of the spinning department of the Mills Mill, Greenville, S. C.

Hines S. Richardson has been appointed overseer of weaving at S. Slater & Sons, Slater, S. C., having been promoted to this position.

T. L. Shepherd, formerly overseer of the carding department of the Martel Mills, Inc., Middleburg unit, Batesburg, S. C., has resigned.

M. T. Poovey has resigned as superintendent of the Hannah Pickett Mills, Rockingham, N. C., and has become superintendent of the Raeford, N. C., Cotton Mills.

J. C. Stroud, Jr., has become night superintendent of the Smithfield, N. C., Cotton Mills.

H. S. Barney, formerly of Rutherfordton, N. C., has become assistant superintendent of the Kinston, N. C., Cotton Mills.

Ben Lambeth, Jr., who has been assistant night superintendent of unit No. 1 of the Cannon Mills Co., Kannapolis, N. C., has been transferred to unit No. 7 at Salisbury, N. C., as general night superintendent, succeeding **Ernest Bolick,** who has been appointed general superintendent of the Central, S. C., Mills.

W. D. Hall, Jr., has become superintendent of the designing department of the Alabama Mills, Inc., Aliceville, Ala., unit.

Andrew G. Perkins of New Bedford, Mass., who for 20 years was associated with the National Silk Spinning Co. of that city as overseer of yarn finishing and later as plant superintendent, has joined the American Thread Co., at its Fall River plant. Mr. Perkins also held positions with Manomet Mills and Fairhaven Mills, of New Bedford, and Clark Thread Co., Newark, N. J.

Harry T. Perkins, Jr., of Fairhaven, Mass., is now assistant technician with the Brookside Mills in Knoxville, Tenn. He was graduated from the New Bedford Textile School, class of 1939, in the general cotton manufacturing course.

Harry Hargreaves, superintendent of winding, warping, drawing-in and weaving at the Barrymore Cloth Co., Ltd., Toronto, Ont., since 1915, has accepted the position of superintendent of newly opened worsted weaving plant of Lester & Burton Ltd., Toronto.

Curley Ward, formerly loom fixer at the Alabama Mills, Inc., Wetumpka, Ala., has been promoted to assistant to the overseer of the weaving department.

Ernest Price has become overseer of night carding at the Bama Cotton Mills, Enterprise, Ala.

Paul Hinson has been promoted to overseer of carding at the Greer unit of the Victor-Monaghan Co., Greer, S. C.

Alvin Smith has been promoted to overseer of spinning at the J. W. Sanders Cotton Mills, No. 3 unit, Meridian, Miss.

J. Ernest Price has accepted the position of overseer of night spinning at the Bama Cotton Mills, Enterprise, Ala.

E. M. Thompson, formerly with the Rushton Cotton Mills, Griffin, Ga., has become assistant superintendent of the Stonewall, (Miss.) Cotton Mills, Inc.

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Photo Courtesy Toni Drake, Pittsburgh Sun-Telegraph

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NEWS ABOUT MEN

Carl McCombs, formerly second hand in spinning at the Victor unit of the Victor-Monaghan Co., Greer, S. C., has been promoted to overseer of spinning.

Joseph Tingle has been appointed night superintendent of the Talbot Wool Combing Co., Norton, Mass. He was formerly connected with Warner J. Steel, Inc., worsted yarn makers, of Bristol, Pa.

J. A. Scroggins, formerly of Russellville, Ala., has become overseer of weaving at the plant of Opelika (Ala.) Mills.

Obituary

Albert Blum, 70, for many years a leader in the dyeing industry, died May 2, at his home in New York. With his brothers, Henry, the late Charles and Fred, he organized Alexander Piece Dye Works, Lodi, N. J. This concern and Boettger Piece Dye Works were later combined into the United Piece Dye Works. Mr. Blum was treasurer for many years. At the time of his death, he was vice-chairman of the board. Mr. Blum was noted also for his work in strengthening Franco-American friendship. The French Government bestowed on him a number of decorations, and in 1938 made him a Grand Officer of the Legion of Honor.

Lynn Banks Williamson, 67, Greensboro, N. C., for many years president and treasurer of the L. B. Banks Manufacturing Co., Graham, died April 11. At the time of his death he was a director of the Burlington Mills Corp. and president of the Virginia Mills Co., Swepsonville. Until about a year ago he was president of the E. M. Holt Plaid Mills, at Burlington, which then was combined with the Burlington Mills Corp.

F. Hermann Stoehrel former superintendent of the Nolde & Horst hosiery mill, Reading, Pa., died April 9 at his home in Wyomissing.

Fred C. Grimes, treasurer of the Mishawaka (Ind.) Rubber & Woolen Co. died recently after a short illness.

John T. Duncan, 82, for many years president and owner of the Douglas Hosiery Mills of Douglasville and Dallas, Ga., died April 22. He was also a prominent banker, being president of the Douglasville Banking Co. for many years.

W. C. Oxley, 50, secretary of the Clinton, S. C., Cotton Mills for a number of years, died March 31, after a brief illness.

Charles F. Jones, 76, superintendent of the knitting department of Cannon Mills Co., No. 1 unit, Kannapolis, N. C., for 13 years, died April 17. He was a native of Cohoes, N. Y.

Mrs. Harriett J. Rodman, 82, president of the Rodman-Heath Cotton Mills, Waxhaw, N. C., died recently.

James A. Burke, retired vice-president of the Holyoke (Mass.) Savings Bank, and former agent of the Lyman Mills, Holyoke, died April 9 after a long illness. He was born in Exeter, N. H., and came to Holyoke at the age of 10. Following his graduation from high school he entered the employ of the Lyman Mills as an office boy and became agent of the mills at the age of 34, the youngest executive in the textile business in New England at that time.

John Pointevent Golden, 82, one of the founders of the Golden Foundry & Machinery Co., and the inventor of many devices used in mill and foundry machine business, died recently in Columbus, Ga.

William H. MacDermott, 70, owner of the George Woolen Mills of Putnam, Conn., died April 23, at Uxbridge, Mass. A native of Leicester, he had lived in Uxbridge 34 years and had been engaged in the textile business most of his life. He was superintendent of the Uxbridge Woolen Mills for several years, later was connected with the New England Woolen Mills in Connecticut and had owned mills in Putnam.

Joseph Wadsworth, 91, pioneer Paterson, N. J., silk manufacturer and inventor of the power loom swivel, died April 21 at Newark following a brief illness. He was one of the founders of the Doherty & Wadsworth Co., Paterson silk manufacturers. Although retired at the time of his death, Mr. Wadsworth still maintained membership on the board of directors.

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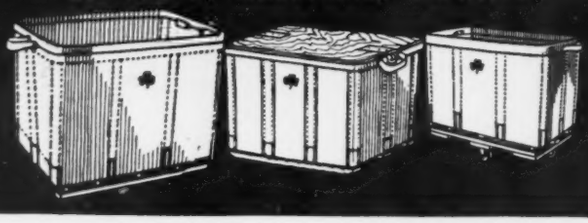

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TEXTILE MILL NEWS

Cotton Mill News

Abbeville (S.C.) **Cotton Mills** have installed a new seven-cylinder slasher, which was manufactured by Cocker Machine & Foundry Co., Gastonia, N. C. It is fitted with the American slasher control system.

Alabama Textile Products Corp., Andalusia, Ala., will construct a new boiler room.

Beacon Mfg. Co., Swannanoa, N. C., has begun erection of one-story addition, for which general contract recently was let to Daniel Construction Co., Anderson, S. C., estimated to cost about $30,000, with equipment.

Belton (S.C.) **Cotton Mills,** have been purchased by J. P. Abney of Greenwood, S. C., who took over the mills on April 22.

Berkshire Fine Spinning Associates will take over the cotton mill division of F. A. Properties, Inc., which has acquired the various units of the Farr Alpaca Co.

Borden Mills, Inc., Kingsport, Tenn., is installing Saco-Lowell long-draft equipment.

Brandon Corp., Greenville, S. C., will install 20 new Saco-Lowell long-draft roving frames. The company has also changed its drawing to controlled-draft system.

Caldwell Linen Mills Ltd., Iroquois, Ont., recently installed new machinery for production of terry towels, including 12 Crompton & Knowles dobby and cam terry towel looms and the latest types of high speed warper, slasher, and finishing equipment.

Callaway Mills, La Grange, Ga., have begun erection of one-story addition, 70 x 83 ft., at their Elm City mill, to be used for expansion in bleachery. Contract was let recently to the Newman Construction Co., La Grange. Cost estimated over $25,000, with equipment.

Canton (Ga.) **Cotton Mills** is equipping all looms with electrical warp stops.

Central Falls (N. C.) **Mfg. Co.** is arranging for installation of new equipment, including about 300 additional looms and accessories.

Cosmos Imperial Mills Ltd., has installed 10 Howard & Bullough Ltd. spinning frames in its cotton mill at Yarmouth, N. S., to replace old equipment.

Courtney Mfg. Co., Newry, S. C., plans installation of $200,000 worth of new equipment in spinning and carding. The company has just completed the installation of more than $175,000 of modern machinery.

Dixie Mercerizing Co., Chattanooga, Tenn., has had under construction an addition which will cost $55,000.

Dominion Textile Co. Ltd., Montmorency, Que., branch, has installed 6 Whitin Super-Draft roving frames to replace obsolete machinery, also 10 units of Saco-Lowell controlled-draft drawing.

Dwight Mfg. Co., Alabama City, Ala., is replacing obsolete equipment with 400 new looms.

Egan Cotton Mill, College Park, Ga., is constructing a one-story addition to cost $30,000.

Erlanger (N.C.) **Mills Co.,** operating the Erlanger and Nokomis cotton mills, plans a modernization program to cost $500,000 or more. The work has already started at Nokomis. The Erlanger Mills have equipped their plant with a new Tintinol process for tinting rayon. The cotton blending system has been equipped with the Borne Scrymser oil-spraying device.

Gastonia (N.C.) **Combed Yarn Corp.** has installed stainless steel package dyeing machinery and the newest type warp mercerizing equipment, built by H. W. Butterworth & Sons Co. of Philadelphia.

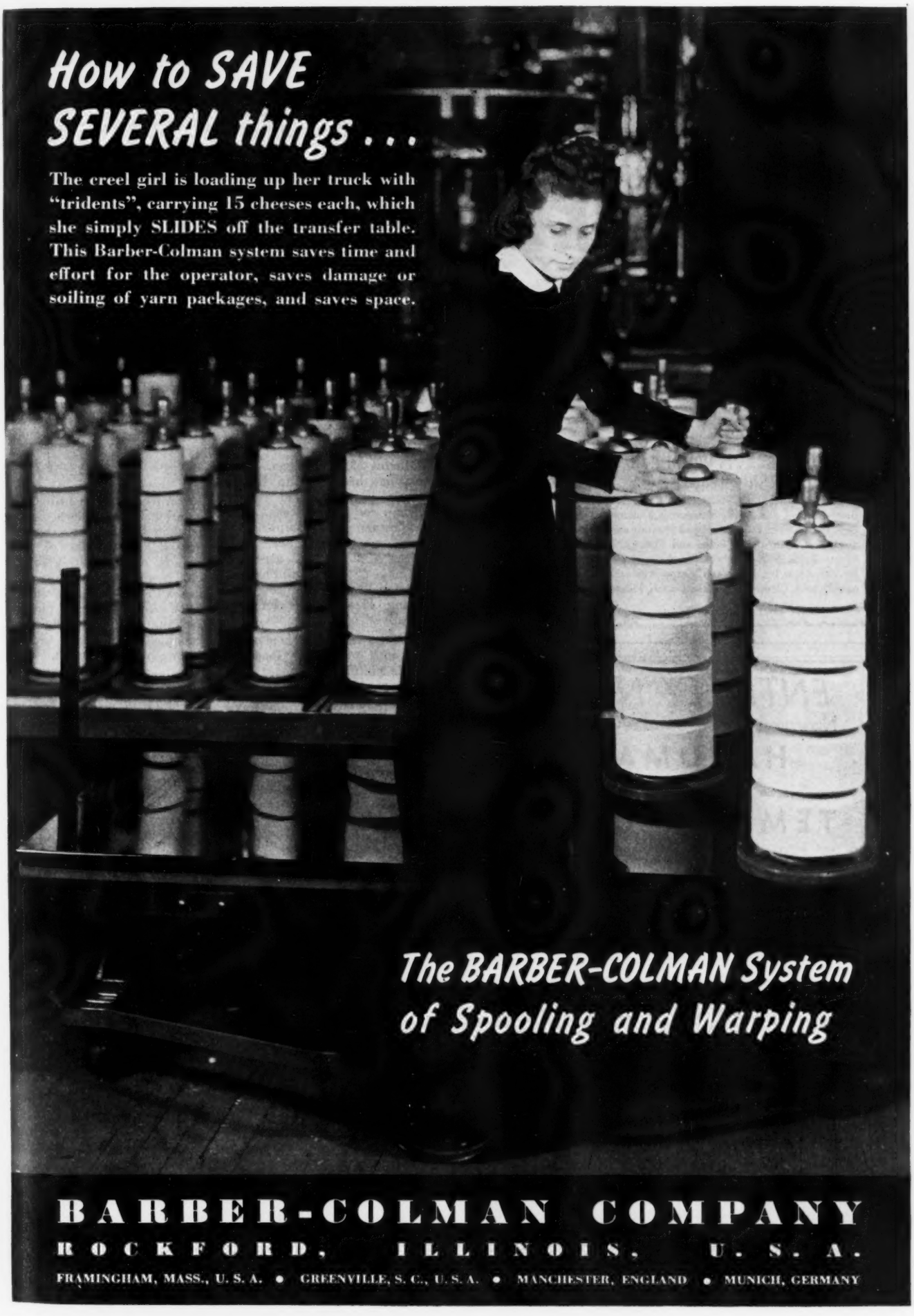
B. F. Goodrich Co., Thomaston, Ga., has constructed a one-story addition to its textile unit, the Martha Mills.

Green River Mills, Tuxedo, N. C., planned to begin construction about May 1 on an addition, 135x100 ft., to provide space for better arrangement of machinery and additional room for twisting, reeling and winding.

International Braid Co. of Canada, Ltd., will erect a new one story plant at Ste. Rose, Que., 300x80 ft., structural steel frame.

Kenneth Cotton Mills, Walhalla, S. C., has completed construction of a $5,000 addition and which allows additional room for spinning and carding.

Laurentian Flax Products Ltd., at Cobden, and at Beachburg, Ontario, and the Farmers Cooperative Co., at Casselman, Ontario, in cooperation with the Experimental Farm, Ottawa, will set up flax prepar-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The creel girl is loading up her truck with "tridents", carrying 15 cheeses each, which she simply SLIDES off the transfer table. This Barber-Colman system saves time and effort for the operator, saves damage or soiling of yarn packages, and saves space.
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ing mills using flax turbing, scutching and pulling machines recently arrived from Belgium.

McComb (Miss.) **Cotton Mills,** a division of the Standard Coated Products Corp., has been sold to the Crescent Machinery Co. of Fall River for approximately $100,000. It is expected that the new owners will offer the mill for resale.

Maiden, N. C.'s new yarn mill will soon begin operation. Machinery is now being moved from the Cayuga Linen & Cotton Mills, Lexington, N. C. to the old Catawba Mill building.

Marshall Field & Co., Spray, N. C., have begun work on one-story warehouse addition to mill at Draper, N. C., for which general erection contract was let recently to John Smith & Son, Leaksville, N. C. Cost about $25,000.

Martel Mills, Egan, Ga., unit, has been sold to Henry Chanin Corp., cotton waste concern for $37,500 cash. The new owner will occupy after improvements are made. The property includes 27 acres of ground, a mill building, a warehouse and a village containing 45 dwellings for the operatives.

Martha Mills, Thomaston, Ga., unit of B. F. Goodrich Co., is building a one-story addition to cost $40,000.

Mauney Mills, Inc., Kings Mountain, N. C., are installing new five-roll drawing frames and lap winders.

Nelson Cotton Mill Co., Lenoir, N. C., combed yarns, has installed 12 new twister frames and 20 long-draft spinning frames and other new equipment.

Oconee Mills, Inc., Westminster, S. C., have begun superstructure for new one-story addition, 92x122 ft., for which general contract recently was let to Daniel Construction Co., Anderson, S. C. Cost reported over $40,000, with equipment.

Overholt Mfg., Inc., Brookville, Ind., has been formed to manufacture textiles and specialties, with 300 shares of preferred and 3,000 shares of common. Incorporators are G. E. Rogers, L. G. Torkelson and K. A. Seaman.

Pacific Mills, Columbia, S. C., officials announce that installation of new machinery in the Olympia unit has reached a stage of about 25% completion. The improvement program to the Columbia units will represent a cost of more than $1,000,000.

Pee Dee Mfg. Co., Rockingham, N. C., has work under way on installation of new machinery, recently purchased from Saco-Lowell Shops, including five-roll drawing frames and lap winders, with accessories, in Nos. 1 and 2 mills, and new controlled draft drawing equipment and spinning frames in No. 2 mill.

Pepperell Mfg. Co., Opelika, Ala., plans one-story addition, totaling about 20,000 sq. ft. of floor space. Cost estimated close to $45,000, with equipment. Work is scheduled to begin soon.

Robinson Yarn Mill, Dallas, N. C., has been installing new equipment to bring the machinery set-up to the highest standard. New roving machinery is already in place.

Russell Mfg. Co., Middletown, Conn., is rebuilding the plant unit destroyed by fire early in the year. The building will be 144x144 ft. and fully equipped will cost $150,000.

Stauffer-Dobbie Ltd., Galt, Ontario, is erecting a 3-story building 135x95 ft., for increased production of bed spreads, draperies, tery towels, etc. Nearly 2,500 cotton spindles will be installed, in addition to opening, picking, carding, drawing, and fly frame machines, also looms, winding and warping equipment.

Sunspun Chenilles, Inc., Asheboro, N. C., has been chartered to manufacture and sell all kinds of fabrics and materials. The authorized capital stock is 1,000 shares, no par, with three shares subscribed by J. M. Schloss, S. B. Stedman and T. L. Smith.

Taber Mill Corp., New Bedford, Mass.—John W. Cussen, Boston, was named trustee at a recent hearing in Bankruptcy Court. RFC holds a mortgage of $424,250 on the property, and one of the priority claims is that of 400 employes totaling $5,718 for wages. A group of employes, supported by textile unions of New Bedford Textile Council, are organizing with a view to operating the plant later, if sufficient funds can be raised.

West Point Mfg. Co., Langdale (Ala.) Mill, is rearranging its old spinning and installing 6,000 new spindles, 4½ in. ga., 2½ in. ring, large-package Whitin long draft. It is also remodeling the opener room and installing Lummus blending gyrators.

White Oak Mills, Greensboro, N. C., suffered damage amounting to $10,000 in a recent fire caused by the bursting of an overheated pipe line leading into an electric turbine.

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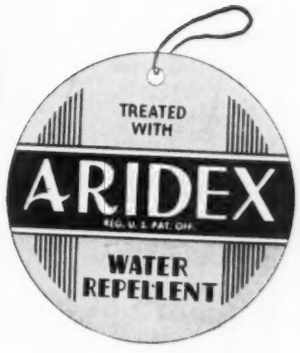

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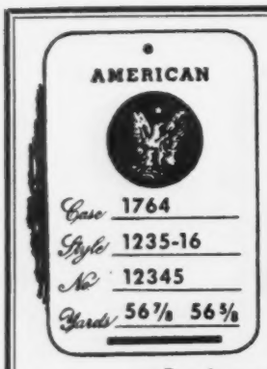

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GEAR CONSTRUCTION
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TEXTILE MILL NEWS

Wiscassett Mills Co., Albemarle, N. C., has installed two extractors of stainless steel.

Wool Mill News

Agawam (Mass.) **Woolen Mill** has been sold to Aaron Krock & Co., Worcester, Mass. The sale included the building, machinery and tenements.

Appleton (Ont.) **Woolen Mills, Ltd.,** have plans under way for one-story extension and improvements in present mill. Cost estimated about $35,000.

Chatham Mfg. Co., Elkin, N. C., has completed removal of machinery to the new unit at Elkin from the old unit at Winston-Salem, N. C. Construction of the new unit represented a cost of about $500,000.

Collins & Aikman Corp., Philadelphia, Pa., has begun erection of four-story and basement addition to branch mill at Bristol, R. I., 140x147 ft., for which general contract recently was awarded to Central Engineering & Construction Co., Pawtucket, R. I. Cost over $100,000, with equipment.

Dominion Woolens & Worsteds, Ltd., is installing at its mill in Hespler, Ont., a Riley water-tube boiler and Harrington type stoker.

Hodges Carpet Co., Fiber Division, Indian Orchard, Mass., has been purchased by the Pachtogue-Plymouth Mills Corp. of New York. The buyer will operate the division in its present quarters, leasing the real estate.

Hood River (Ore.) **Woolen Mill** was destroyed by fire last month with loss of $30,000.

Kentucky Looms, Louisville, Ky., has recently been organized by Raymond M. Wolfe, formerly of Churchill Weavers, and Herman Ullman, formerly with the Harry Failer Co. The new firm will specialize in hand-woven fabrics including dress goods, tweeds, and neck wear.

James Lees & Sons Co., Bridgeport, Pa., has awarded general contract to Lloyd F. Kershner, Inc., Montgomery Trust Arcade, Norristown, Pa., for one-story addition, including alterations and improvements in part of present mill. Cost reported close to $45,000. Ballinger Co., Philadelphia, Pa., is architect and engineer.

Lewis Ltd., Truro, N. S., makers of hats, felt bodies, hosiery, yarns, etc., have recently completed a new mill, 122x70 ft., one story and basement, with saw tooth roof, for the manufacture of long staple fiber yarns on the Weinberger system. Included in the new equipment are Whitin worsted cards.

Livingston Worsted Mills, Holyoke, Mass. have installed a grease extractor that salvages lanolin from raw wool.

Maitland Spinning Co., Listowel, Que., has begun erection of two-story addition for expansion in spinning mill, and one-story extension for use as a dyehouse. Equipment will be installed for increased capacity. Cost estimated about $100,000. Award for erection has been made to W. H. Cooper Construction Co., Hamilton, Ont. Hutton & Sutter, Hamilton, are architects.

Medford (Mass.) **Wool Scouring Co.,** recently chartered for $100,000, plans early operation of local mill. M. C. Thorson is president, and Edwin R. Sparrow, treasurer.

Newlands & Co. Ltd., Galt, Ont., recently awarded to the Schultz Construction Co. of Brantford, Ont., the general contract for construction of a three-story addition at a cost of $150,000. The plant will measure 102x100 ft., and will be used for expansion of the worsted yarn department and for greater production of knitted fabrics.

Providence (R. I.) **Wool Combing Co., Inc.,** recently organized, has purchased local mill and business of Providence Combing Mills, Inc., and will take over property at once, continuing operations as heretofore. Theodore W. Jenks, connected with latter company for many years, is president and treasurer of new organization.

Sheboygan Falls (Wis.) **Woolen Mfg. Co.,** will start operations shortly with R. S. Rogers, Wilmette, Ill., as general manager.

Springfield (Tenn.) **Woolen Mills** have had controlling interest bought by Alfred and Vernon Sharpe, Nashville stockbrokers representing persons as yet unidentified.

Uncas Mfg. Co., Providence, R. I., is building a 30x30 ft. addition to their plant on Atwells av. from plans by D. Thomas Russillo, Providence.

Rayon & Silk Mill News

American Bemberg Corp., New York, N. Y., is arranging appropriation of about $650,000 for expansion and improvements in mill at Elizabethton, Tenn. Work is scheduled to be carried out this year.

American Viscose Corp., Roanoke, Va., has awarded general contract to B. F. Parrott & Co., Roanoke, for alterations and improvements in mill. Cost reported over

DOWN THROUGH THE AGES—

By accident, nature has preserved excellent specimens of animal and vegetable life. Animals buried for ages have been found preserved in the tar lakes of the West. Prehistoric insects have been found imbedded in amber.

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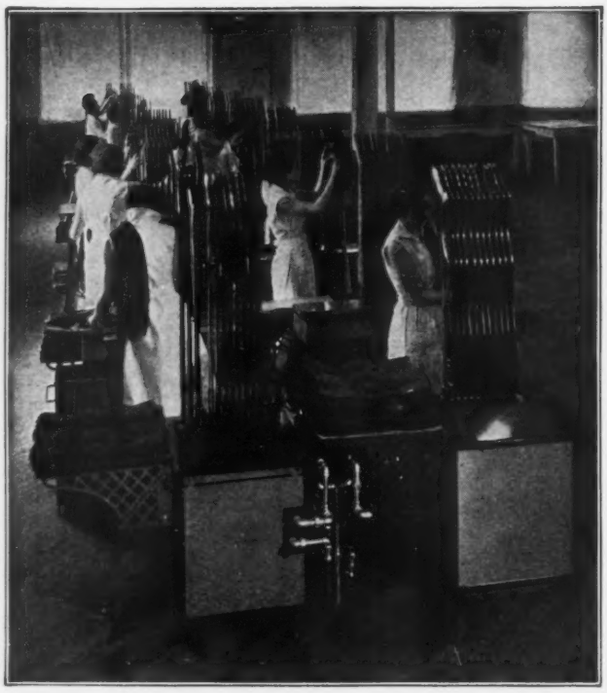
HOSIERY FINISHING



A PRODUCTION in excess of 1,000 dozens full fashioned ladies' hosiery is being finished daily on the 13 PARAMOUNT DUAL HEAT MACHINES operated in this mill during one eight-hour shift—and the character and quality of the work is incomparable since the PATENTED DUAL HEAT principle of drying is positive protection against "baking" delicate silk fabrics. Not only does the PARAMOUNT DUAL HEAT MACHINE contribute outstanding features of production and quality, but it represents—

1. Less investment per dozen
2. A minimum of floor space occupancy
3. Less power and steam consumption per dozen
4. Ideal room and working conditions
5. Less maintenance
6. Ease and comfort to the operator
7. Simplicity and durability of construction

Any one feature alone, of the numerous advantages which the PARAMOUNT DUAL HEAT MACHINE offers, will justify a change to this superior method of hosiery finishing.

WRITE FOR DETAILS

Furnished on SALE or RENTAL Plan.

PARAMOUNT TEXTILE MACHINERY CO.

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$45,000. Ballinger Co., Philadelphia, Pa., is architect and engineer.

Burlington (N.C.) **Mills Co.,** has begun operations at mill of Bogle-Watkins Corp., Greensboro, N. C., recently secured under a five-year lease. It will be used as a finishing plant for full-fashioned hosiery. Option has been taken to purchase at any time during period of lease for a reported consideration of $75,000. Bogle-Watkins Corp. is discontinuing the manufacture of men's hose.

Celanese Corp. of America, Inc., New York, has authorized an appropriation of about $7,000,000 for expansion in manufacture during 1940, to include extensions at mills at Amcelle, Md., and Pearisburg, Va. At latter mill, plans are maturing for the installation of 12 new machines and auxiliary equipment.

Industrial Rayon Corp., Cleveland, Ohio, has let general contract to George A. Rutherford Co., Cleveland, for additions to mill near Painesville, Ohio, including basement, 80x225 ft., under present spinning room; one-story top addition to high-monitor spinning room, 90x455 ft.; and top story addition to present three-story chemical preparation building, and several auxiliary structures. Work will be placed under way at once. Capacity will be increased about 50%. Cost reported close to $4,000,000, with machinery. Wilbur A. Watson & Associates, Cleveland, are engineers.

Lenjo Fabrics, Inc., Elmira, N. Y., has taken over former plant of the Field Force Pump Co., Elmira Heights, N. Y., and will improve and occupy for mill. Present plant will be removed to new location and capacity more than doubled.

Luray (Va.) **Textile Co.** has closed bids on general contract for new one-story silk throwing mill, and will begin erection at early date. Cost is reported over $50,000, with equipment.

Marshall Field & Co., Spray, N. C., unit, has awarded the contract to F. W. Warrington Co. for the installation of Fletcher rayon twisters and one Automatic 40-inch Fletcher Whirlwind extractor. Also one Hurricane automatic skein dryer, manufactured by the Philadelphia Drying Machinery Co.

Reade Mfg. Co., LaFollette, Tenn., has announced plans for the construction of a building for storage purposes, and an expansion program which is expected to add $75,000 annually to the pay roll.

Roanoke (Va.) **Weaving Co.,** has begun the construction of a new addition which will cost about $54,000. Between 150 and 200 additional looms will be installed. The floor space of the company will be increased from 40 to 50%.

Seneca Throwing Co. Inc., is being chartered in Wilkes-Barre, Pa., to engage in the manufacture and distribution of silk and other textile fabrics. Shields, Clark, Brown & McGown, Philadelphia, represent the new firm.

Knitting Mill News

Atlas Knitting Mills, South Pittsburg, Tenn., began operations April 1. W. L. Tate, owner and manager, was formerly with McAlister Hosiery Mill, Chattanooga, and more recently with Marion Hosiery Mills, South Pittsburg.

Best Maid Silk Hosiery Co., Quakertown, Pa., has begun superstructure for a one-story addition. Cost reported about $25,000, with equipment.

Bradley Knitting Co., Delavan, Wis., has been authorized by stockholders to apply for a $200,000 loan from RFC to improve its working capital.

Brampton (Ont.) **Knitting Mill** has asked bids on general contract for one-story addition, and will begin erection in May. Cost estimated about $45,000, with equipment. A. G. Garner, 335 Douglas St., Stratford, Ont., is architect.

W. W. Burns has established a new hosiery mill at Hickory, N. C., which has just gotten into operation. It is housed on the second floor of the brick building on West Ninth Avenue, which formerly housed the G. & H. Hosiery Mill.

Colony Hosiery Corp., Philadelphia, Pa., organized about a year ago as a cooperative, has taken title to mill at Hellerman and Edmund Sts., heretofore held by the County Trust Co., now under the direction of State Banking Department. It has been occupied under lease since company began operations.

Davis Full-Fashioned Hosiery Mills, Inc., Greenville, N. C., has begun construction of an addition to house the dyeing, finishing and boxing departments. It will cost $15,000.

Derby Underwear Co., Bowling Green, Ky., has been capitalized at $10,000. Principals are L. H. Humble, Samuel Dreyer, and Samuel M. Rosenstein, all of Frankfort, Ky.

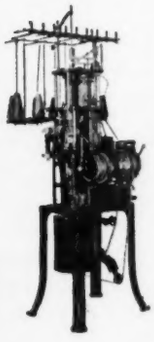
BARE KNEE Fashi
THEY SAY that bare-knee fash... held at Lord and Taylor's yeste... shown. Flannel shirt $7.95, ...
...ress fashion show yesterday ...ted sweater, red ...and Norse moccasins.

Fashion Show Gives Instruc... on Knee Make-Up, ...ring Legs

Lord & Taylor Shows Some Bare Knees Styles.

Fashion Bares And Beautifies

KNITTING CIRCULAR



THE MACHINE THAT MADE A FASHION

The fashion we are talking about is the women's high sock for sport . . . and the machine that made it possible is the Scott & Williams' Komet Links-and-Links Machine. And if you don't believe that this high sock, with its rugged, bulky knitting, *is* a fashion—a growing, nationwide sports fashion—read about the excitement and activity it is causing merchandising and publicity circles.

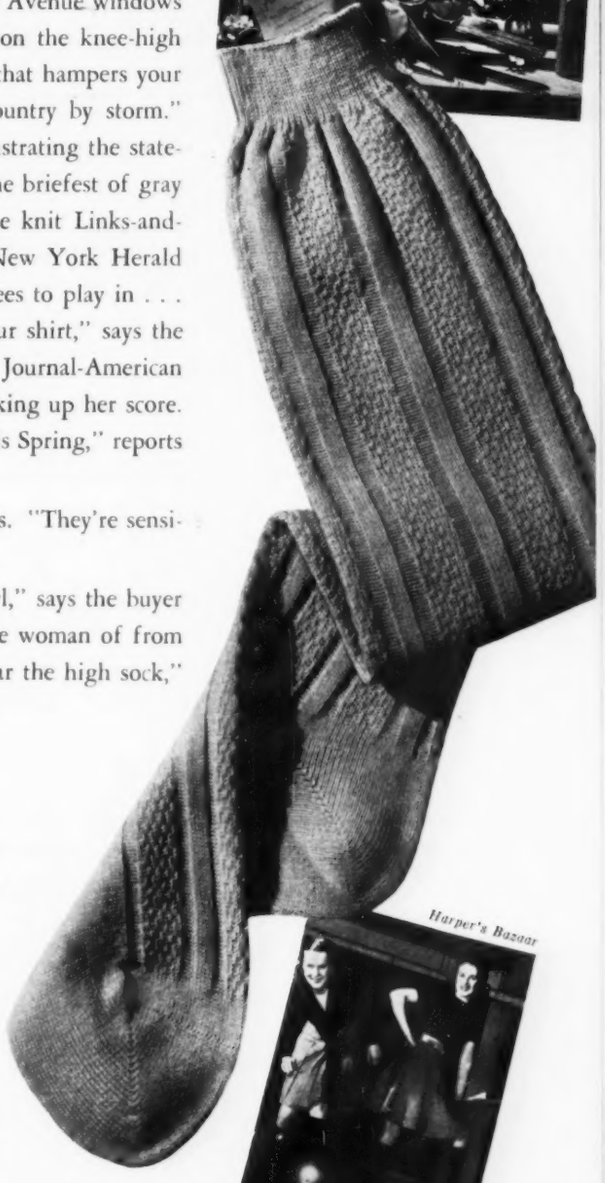
"Bare Knees for the Country," says Lord and Taylor, and gives a fashion show, pages of newspaper advertising and five Fifth Avenue windows to outfits designed from shoes to hats to focus attention upon the knee-high Links-and-Links socks of the wearers. "Away with the skirt that hampers your stride. Our charming bare-knee fashions have taken the country by storm." "Knees are in because they're out," says Harper's Bazaar, illustrating the statement with a full page photograph of two young women in the briefest of gray flannel skirts and blue blouses or jerseys to match their blue knit Links-and-Links high socks. "Bare knees in the spotlight," says the New York Herald Tribune and devotes half a column to the subject. "Bare knees to play in . . . bare knees and bright colored knee-length hose to match your shirt," says the New York Sun. "Bare knees for bowling," in the New York Journal-American and a photograph of a chic young woman in high socks chalking up her score. High socks for golf and hiking. "Knees Out in the Open This Spring," reports Women's Wear Daily.

"They're smart," says the feminine public of the new fashions. "They're sensible," says the male contingent.

"We've put the knee sock on the high school and college girl," says the buyer of a Fifth Avenue shop. "Now we are going to put it on the woman of from twenty to forty." "Every woman who wears anklets will wear the high sock," prophesies the vice-president and style head of a leading store. "To be smart the knee sock MUST have bulk," says one of the country's foremost stylists, establishing the fact that it must be of Links-and-Links (or hand) construction. This new fashion is just at its beginning. In the fall the high sock will be in greater demand than ever because it complements autumn sport costumes so perfectly.

The high sock is only *one* item produced on the Komet Links-and-Links Machine, one of the most versatile machines ever made—if not the *most* versatile. Equip your mill now with the Komet Links-and-Links machine. It means sound, profitable business in many active markets. Our staff will answer all your questions about this and the other Scott & Williams Machines.

Lord & Taylor



Harper's Bazaar

"This is the 75th year of the Scott & Williams Machine Age"

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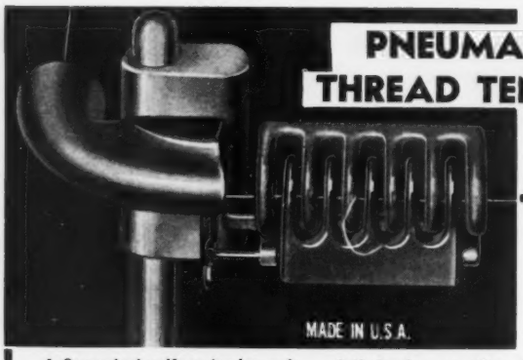
NEW BEDFORD, MASS.

WILLIAM WHITMAN COMPANY, Inc.
NEW YORK BOSTON PHILADELPHIA CHARLOTTE



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Builders of creels and warping equipment

A Guide to

Textile Exhibits at the New York World's Fair

will be featured in the

JUNE ISSUE

of

TEXTILE WORLD

Be on the lookout for it!

TEXTILE MILL NEWS

Malone Knitting Co. will enlarge its Springfield, Mass., plant by adding 10,000 sq. ft., according to Edward T. Malone, president. The company now occupies 30,000 sq. ft.

Musgrove Knitting Co., Pittsfield, Mass., voted for liquidation at a meeting of the stockholders April 15.

Pickwick Hosiery Mills, Inc., Corinth, Miss., has begun operations. L. E. Watson, president of Merchants & Farmers Bank of Corinth, is president of the new company, with Frank K. Hughes, vice-president, and Fred Fichner, secretary and treasurer. Incorporators are Thomas K. Goldenberg, of Upper Darby, Pa.; Sidney Chait, of Philadelphia, Pa.; and Mary T. Lavis, of Philadelphia, Pa. This company capitalized at $50,000 replaces the defunct Corinth Hosiery Mills, Inc.

Salem Full-Fashioned Hosiery Mills, Inc., Roanoke, Va., of which William S. Coulter is vice-president, has changed the location of its principal office from Pulaski, Va., to Roanoke.

Terra Alta (W. Va.) **Hosiery Mills** will begin operations soon under the management of George and Pater Farrell, natives of Scotland. The equipment is being moved from a plant in New Jersey.

Vance Hosiery Mills, Inc., Henderson, N. C., newly organized, has let contract to C. L. Carter Lumber Co., Henderson, for construction of one-story building, 42x52 ft. The new company will install 20 Scott & Williams machines.

Williamsport (Pa.) **Underwear Mills** have started in the former U. S. Rubber Co. building. M. Z. Dworkin is superintendent.

Processing Plant News

Aberfoyle Mfg. Co. of Canada, Metcalfe St., Guelph, Ont., recently completed installation of a soda recovery system made by Zaremba Co., Buffalo, N. Y. The equipment is housed in a new brick building.

Eastern Process, Inc., 196 Broadway, Cambridge, Mass., recently organized with capital of 500 shares, plans operation of a local textile print works. John N. Kelly is president; and Richard Bowler is the treasurer.

General Textile Dye & Finishing Works, Philadelphia, Pa., has filed petition for reorganization with U. S. District Court.

Hartsville (S. C.) **Print & Dye Works** has been discharged by the court from 77B proceedings.

Lanett (Ala.) **Bleachery & Dye Works** are installing new equipment in a plant addition. A new filter system has been completed.

Lowell Bleachery, Inc., St. Louis, Mo., has acquired land adjoining mill at Polk and Courtois Sts., about 125x175 ft., and will use for plant addition. Large increased capacity is planned.

Sorbtex Foundation, Inc., Richmond, Va., with maximum capital of $5,000, has been chartered by the Virginia corporation commission to treat chemically textiles and other materials. Warren L. Moody, of Richmond, is president.

Southern Bleachery & Print Works, Taylors, S. C., Harry R. Stephenson, president, will build a $50,000 addition for storage. J. E. Sirrine & Co., Greenville, S. C., are the engineers.

MILL VILLAGE NEWS

Calhoun Mills, Calhoun Falls, S. C., will spend $40,000 improving its village. The program includes construction of a new community building and paving of roads and sidewalks.

Clifton (S. C.) **Mfg. Co.** is improving its village with additional bathroom facilities, but will at the same time increase the rents.

The 60 houses comprising the **Cowpens** (S.C.) **Mills** village have been sold for $14,000 to T. Henry as part of the liquidation program of the bankrupt mill. Mr. Henry has purchased the village as an investment with the intention of renting the houses.

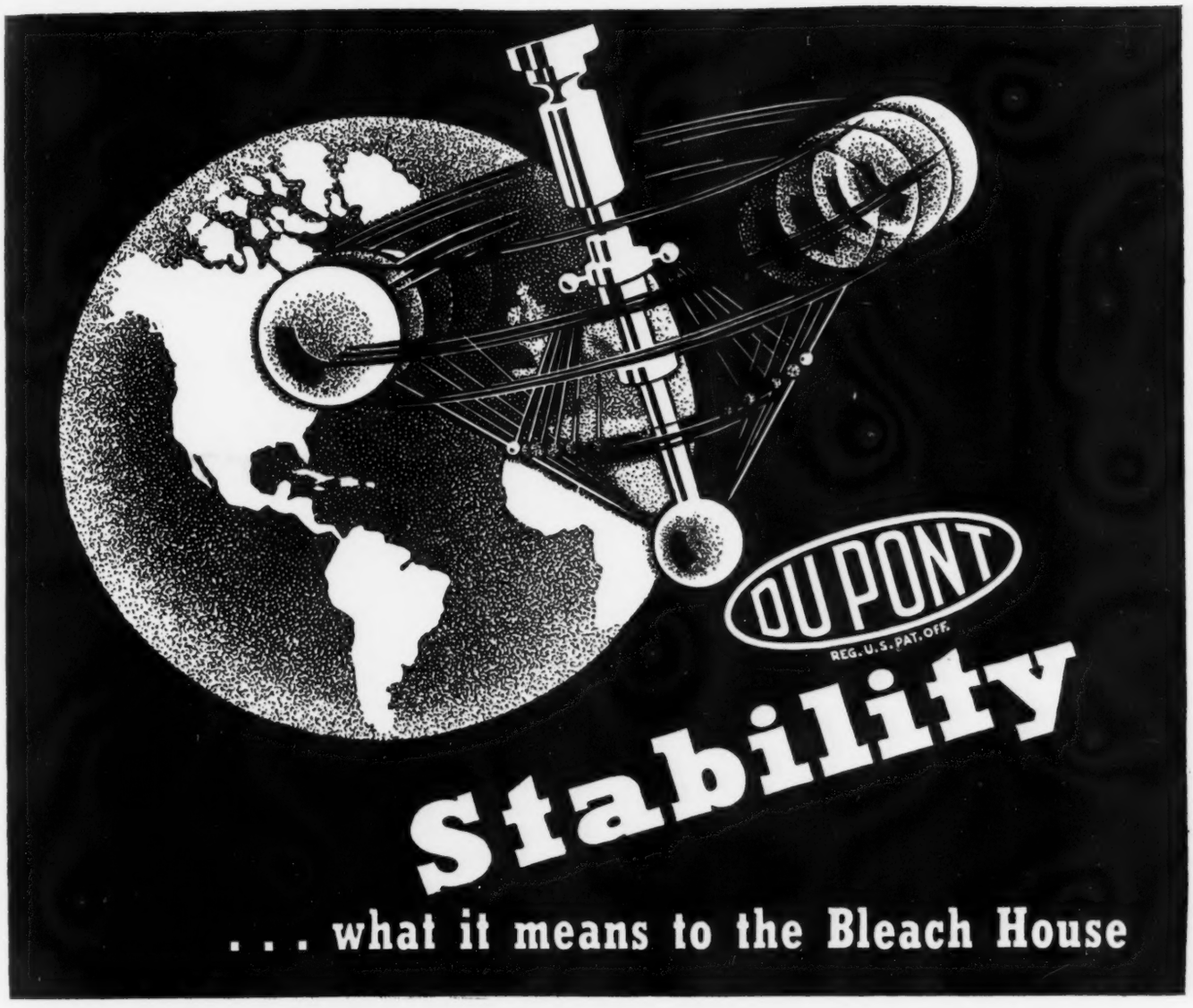
According to recent report 127 homes of the **Drayton Mill** village, Spartanburg, S. C., have been sold to employees of the mill.

Esther Mill Co., Shelby, N. C., plans to sell 94 houses in its village to employees.

Deeds have been filed at Laurens, S. C. to more than 100 homes sold by the **Laurens Cotton Mills** to its employees.

Mathews Mill, Greenwood, S. C., has begun construction of 50 dwellings for the operatives. These are to be sold to them on easy payment terms. They are being built on property near the city and the lots range in size from one to 10 acres each.

Spartan Mills, Spartanburg, S. C., is raising rents in its village from 25c and 40c per room per week to 50c and 65c per room per week.



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H. G. LORD Comments on

"These Exciting Years"

Douglas Woolf was not referring to the war when he used these words for his introduction to the splendid Cotton Industry Progress section of Textile World for May. He meant the next ten years in the textile industry. Goldthwaite Dorr, when using those same words at the annual meeting of the Cotton Textile Institute, meant the last ten years through which the industry had passed.

They are all "exciting years," both those to come and those which have passed, and I am willing to agree that, looking back over my experience of more than fifty years, I do not recall a time when the ten years forward outlook and the ten years backward retrospect were filled with more exciting possibilities and experiences.

I have been much impressed with the recent editorial psychology of Textile World. It has not been content to record past and present happenings, but is forecasting the future in the light of the past and present. Isn't that what all of us are trying to do in our own affairs? It is putting into concrete form the thinking of the forward-looking and planning men of the industry. It is setting definite objectives and defining the problems.

I think the May issue was a real inspiration and John A. McPherson's article ought to be read by every cotton manufacturer. His estimate that there are 15,000,000 cotton spindles today that are in need of modernization in some degree, is not an overestimate. I agree with him that practically all the operators of these spindles are aware of it, but are deterred by lack of financial resources. But is there anything in the future outlook to warrant hope that conditions will be better for them, except during temporary spurts? And there will never be any more idle capital than now.

There is an excuse for a reasonable delay to appraise the merits of radical new developments and processes. But it doesn't pay to wait too long. Fifty years ago there was the fiercest controversy on the comparative merits of the revolving flat-top card and the old Foss-Pevy type of wooden cylinder cards with which American mills were equipped; but there have been none of the latter used for the last forty years. Half a century ago the advantage of ring spinning over mule spinning for American cotton mills was still questioned by many manufacturers who were still buying mule spinning; but many mill men today have never seen a cotton mule except in a museum. Inevitably the machines and the processes which will produce the best goods at the lowest cost win out. It has always been so and it will always be so. The successful manufacturer is the one who gets on the bandwagon before it is too late.

After reading the May issue of Textile World, I was prompted to look over a copy published in May 1890—fifty years ago. In the cotton section I find such articles as "How to Start a Cotton Mill;" "How a Ring Spinning Mill Can Increase Its Production and Diminish Its Waste." I find one of the die-hards writing "To be sure one of these new revolving flat cards does make a marvelously good showing, but I believe a good card of the American type will soon be made which will give these new fangled revolving flats something better to compare themselves with."

I find a very interesting article on the cost of a small English cotton mill in 1836—4,500 spindles; 128 looms. The cost of the mill complete, with building, power plant and machinery was $8.82 per spindle, and the same article says that "in England today (1890) a mill of the very best construction, filled with modern machinery, costs from $8.00 to $9.00 per spindle, including the looms, or about the same as the old primitive mills of 1836." As I recall it, the cost of new cotton mills in the United States in the "nineties" was about $12 to $16 per spindle, including the building.

The Tariff was the vital editorial topic in May 1890. The McKinley bill was under consideration by Congress. I read with great interest the following editorial paragraph, which I wrote myself and with which I am still in accord: "Our sentiments as regards the tariff on textiles have been often expressed in these columns and the fact that the framers of the bill under discussion have different opinions respecting the policy to be pursued, in no degree shakes our confidence in the justice or the practicability of the stand which we in common with many others have taken for lower and ad valorem duties on raw materials."

Yes!—these are exciting years—and always have been! —and I guess they always will be. Right?

H. G. LORD, *founder of Textile World in 1888 and president, Bragdon, Lord & Nagle Division, McGraw-Hill Publishing Co.*